

*Burt Kaufman*

AN APPRECIATION



# *Burt Kaufman*

*An Appreciation*

Published by

Institute for Mathematics & Computer Science  
7435 NW 4<sup>th</sup> Street  
Plantation, FL 33317  
USA

<http://www.imacs.org>

Tel: +1-954-791-2333

Copyright © Institute for Mathematics & Computer  
Science, 2007. All Rights Reserved.

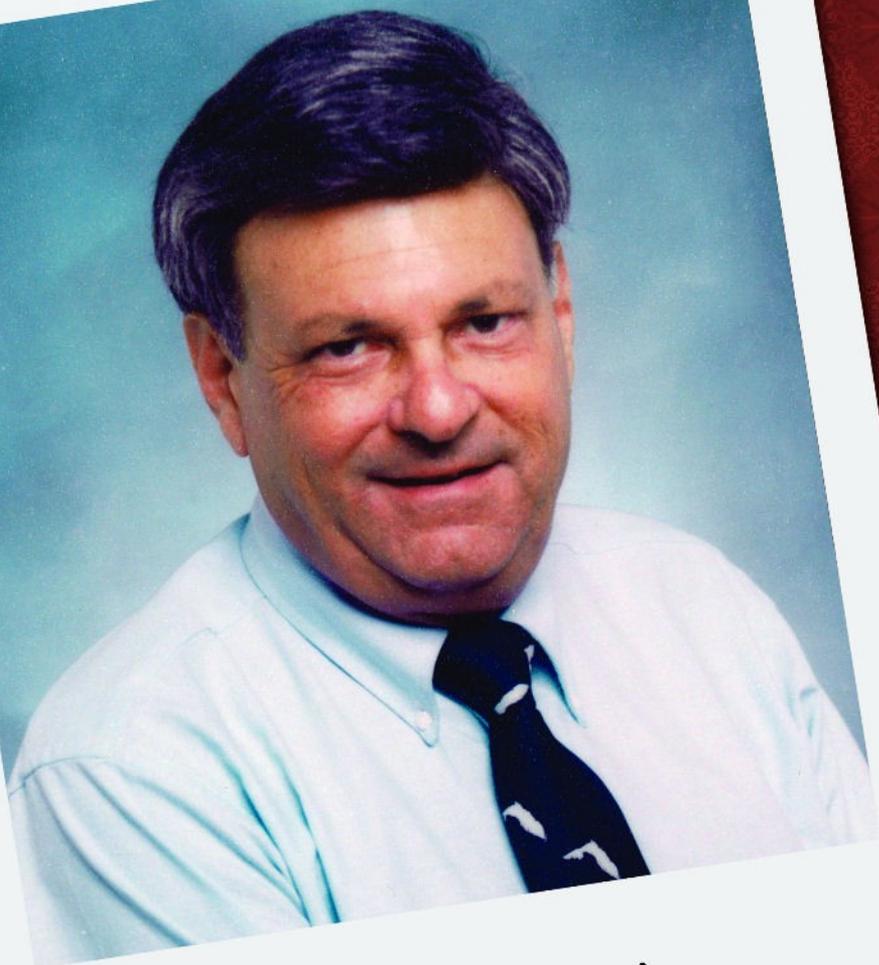
Graphics by

Ryan Nolan, Infuse Concepts, Inc.

## *Table of Contents*

Foreword.....	3
Friends.....	27
Colleagues.....	43
Staff.....	63
Parents.....	95
Students.....	107
<i>Contributors</i> .....	147





Foreword



## *Foreword*

Burt Kaufman has retired.

To those who know him, that sounds like an oxymoron. Yet it's true. Such a watershed event cannot be allowed to go unmarked. So we, his colleagues, decided to collect together a miscellany of reminiscences, anecdotes, historical reflections, and letters of appreciation from the far-flung network of those whose lives he has touched. This volume is the result.

It is our sincerest desire that these offerings will brighten Burt's days and bring home to him just how much he is valued as a *mensch* and just how much his indefatigable and selfless efforts in championing the cause of quality education for mathematically-talented young people have been treasured by the multitude of those who have benefited.

*Iain Ferguson*

*Terry Kaufman*

*Edward Martin*

# *A Lifetime of Service to Mathematics Education*

Burt Kaufman's 53-year professional career deserves the attention of a competent biographer. In the absence of such a person, we shall content ourselves with providing an annotated chronological overview. This will supply a context within which to read the contributions we have received from Burt's friends, colleagues, staff, students and the parents of Burt's students. It will also inform each of these groups of people about aspects of Burt's career of which they have until now been ignorant.

## **1949**

Graduated from high school: Baltimore City College, Baltimore, MD.

## **1953**

Graduated B.A. in Mathematics from Franklin and Marshall College, Lancaster, PA.

## **1953 – 54**

Taught Mathematics at Southern Junior High School (now Digital Harbor High School), Baltimore, MD.

## **1954**

Married Paulette “Pinky” Friedlander.

## **1954 – 55**

Taught Mathematics at Garrison Junior High School (now Garrison Middle School), Baltimore, MD.

## **1955 – 61**

Taught Mathematics at Baltimore City College, Baltimore, MD.

**1956**

Graduated LL.B. from the University of Baltimore, having taken night classes since 1953.

**Summer 1960**

Attended a six-week National Science Foundation Institute studying under Dr. Arnold Ross [deceased, September 2002] at the University of Notre Dame, South Bend, IN, in a class comprising 75 practicing teachers together with 25 gifted high school mathematics students. In Burt's words, the high school students “were quantum leaps ahead of us in knowledge, interest and ability to learn. They made us look bad and humbled us.” It was then that Burt decided, “If there's an opportunity in my life for me to create a curriculum similar to what I'm studying now, I want to.”



**Curt Jefferson, Father Larry Lorenzoni & Burt Kaufman**

## **1961 – 62**

Spent a sabbatical year in a National Science Foundation Institute at the University of Notre Dame, South Bend, IN, studying again under Dr. Ross and earning an M.A. in Mathematics.

## **Summer 1962**

Saw an ad in the South Bend newspaper seeking someone to develop the mathematics curriculum for the experimental Nova High School in the proposed South Florida Educational Park to be constructed on the land of Forman Field, the World War II air naval training base in Davie, Florida. The school would not be accepting any students until the fall of 1963. Burt applied and was hired for the job, even though it would mean a cut in salary and would necessitate his having to return his sabbatical pay.

## **1962 – 63**

Studied in a National Science Foundation Institute at the University of Michigan, Ann Arbor, MI.

## **1963 – 66**

Served as Mathematics Coordinator of the Nova Schools, Nova High School, Davie, FL.

## **1963**

Charged with the task of designing a multi-track secondary school mathematics curriculum from scratch, Burt found himself learning the art of curriculum development on the job. Supported in part by funding from the Ford Foundation, he put together the Nova Mathematics Advisory Committee under the chairmanship of Professor Paul Rosenbloom (then of the University of Minnesota and subsequently of Columbia University [deceased, April 2005]). This committee rapidly decided on a tentative curriculum for the fast track students and chose what they thought were appropriate published texts (mostly written for a university or college audience).

In November, the Report of the Cambridge Conference, *Goals for School Mathematics*, was published and immediately had a powerful impact on the mathematics education community. Burt contacted all 28 conferees and offered the Nova Schools as a site for developing and trying out the curriculum advocated by the conference. This led to the involvement in Nova's mathematics curriculum reform effort of the renowned Professor Robert Davis (then of Syracuse University and eventually of Rutgers University [deceased, December 1997]).

## 1964

The textbooks chosen by the Advisory Committee were proving to be too lacking in rigor to be used effectively with pre-college students. So Burt and a colleague, Joe Karmos, began the challenging task of rewriting the texts for a younger audience. Recognizing the impossibly demanding nature of this self-imposed task, the Advisory Committee recommended that Burt apply for funding to run a series of meetings aimed at establishing a large-scale curriculum development project.

## 1965

Funding was forthcoming from the U.S. Office of Education to run three planning meetings. The first of these was attended by Professor Robert Exner (of Syracuse University [deceased, August 1992]), who, following conversation with Burt, volunteered to write a logic course suitable for use with seventh graders. Their expectation was that early familiarity with logic and logical reasoning would so simplify the learning of the mathematics normally taught in secondary school that a significant amount of time would become available for learning more advanced material, thereby hastening the arrival at the forefront of mathematical, scientific, and technological research of those best equipped to make important contributions.

## 1966

The three planning meetings generated sufficient ideas for the detailed outline of a full-scale project to emerge. Writing a proposal to seek funding for such a project would clearly be a monumental task. So Burt was thankful for the assistance of Dr. Garrett Foster (of the College of Education, Florida State University, Tallahassee, FL), who happened to be residing in the Fort Lauderdale area in order to document the formation and growth of the Nova Schools. Just as their proposal-writing was nearing completion in April, they discovered to their dismay that the proposed mathematics curriculum project was being spoken about in public as a flagship project of Nova University, which was just about to open its doors. The public pronouncements made it sound as though Foster would leave FSU to take up a position at Nova University and that the mathematics project would be directed by the newly-appointed Dean of the College of Education, who was a science education specialist. All this without any prior consultation with either Foster (who certainly had no intention of leaving FSU) or Kaufman.

One of those helping Foster and Kaufman to complete the funding proposal was Dr. Jack Kelly, a former classmate of Foster's who was on the education faculty at Southern Illinois University in Carbondale, IL. After consulting with the appropriate authorities at SIU, he encouraged Burt to leave Florida and take his ideas to Carbondale where he would be given the opportunity to finish the task of turning them into a funding proposal. Consequently, in the summer of 1966, Burt left Nova, accompanied by two colleagues, Joe Karmos and David Masters, and six Nova High School students who were eventually to complete their high school education at the SIU Laboratory School, living in university dormitories during the school year and visiting home in South Florida during vacations. One of the students, a girl, completed all four years of high school in this way. (About

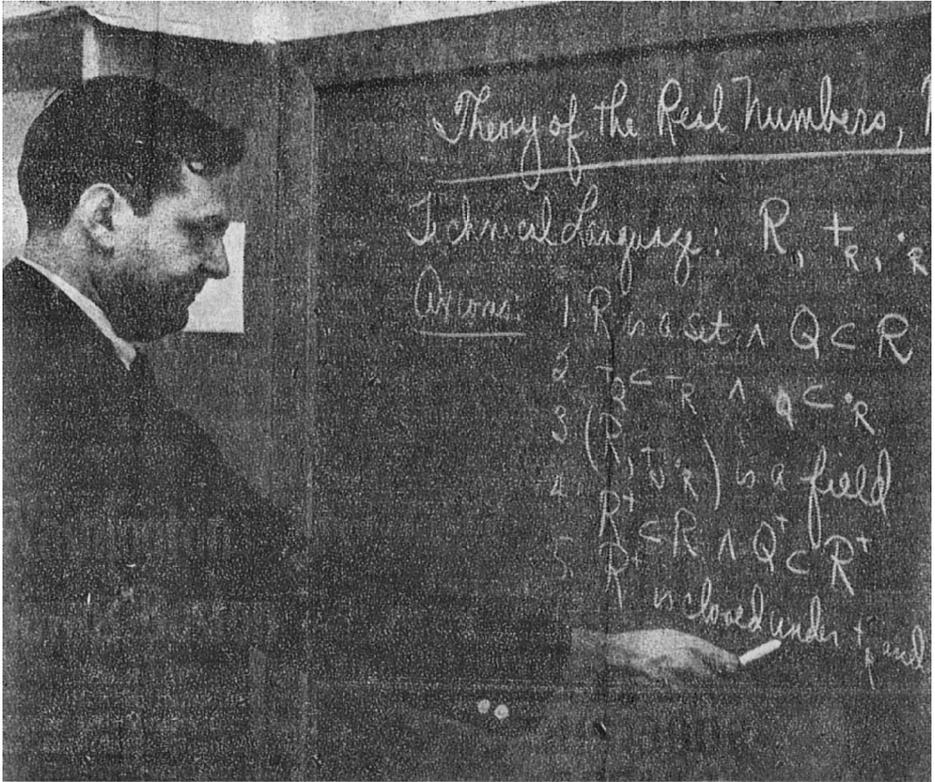
30 Nova students wanted to make the move to Carbondale, but only six were able to persuade their parents.)

Immediately following the move to Carbondale, word came through that the U.S. Office of Education had awarded the sum of \$10,000 to finance the proposal-writing effort. They were prepared to allow these funds to be paid through SIU in Carbondale. But this proved unnecessary because the university had previously decided to employ Burt and his colleagues as faculty members while the proposal was being written.

During this same summer, Burt participated in the planning conference and teacher training institute at Columbia University's Teacher's College which led to the formation of the Secondary School Mathematics Curriculum Improvement Study (SSMCIS) directed by Professor Howard Fehr [deceased, 1982]. At this conference, Burt met a number of eminent European mathematics education reformers and invited them to join the advisory group for the proposed development project. Among those who were later to be active in this advisory capacity were Hans-Georg Steiner (then of the University of Münster, Germany, and subsequently of the University of Bielefeld, Germany, and a member of the International Commission on Mathematics Education [deceased, December 2004]) and Lennart Råde (of the Chalmers Institute of Technology, Göteborg, Sweden, and subsequently Chairman of the International Committee on the Teaching of Statistics [deceased, 1999]).

Once school started in the fall, Burt and his team continued planning the new project (which was to be known as the Comprehensive School Mathematics Program [CSMP]) and Robert Exner began writing what was to become Book 1 of the *Elements of Mathematics* series, entitled “Introductory Logic”. The writing proceeded interactively, with Exner

writing a section, Burt teaching it and sending notes, comments, and suggestions back to Exner (and meeting with him face to face from time to time), and Exner revising the material in light of the classroom experience.



Burt Kaufman uses blackboard to explain theory of numbers

## 1967

Steiner paid a three-week visit to Carbondale, advising the project planners on curriculum design and administrative structure. In April, the Central Midwestern Regional Educational Laboratory (CEMREL) — one of a nationwide network of twenty educational research and development centers set up under the Johnson Administration — agreed to take CSMP as one of its federally-funded research projects, with SIU sharing some of the staff costs during the

first year. CSMP would be based in Carbondale as a satellite of CEMREL's St. Louis operation. The initial project staff was hired and development work began in the fall of 1967. The need was soon felt for students to have intuitive mathematical experiences in addition to an education in formal logic. So the idea of *Elements of Mathematics* Book 0, "Intuitive Background", was born, and CSMP staff members began writing appropriate material under the direction from abroad of Steiner. Meanwhile, Exner (at Syracuse) and Burt (in Carbondale) were interactively developing *EM* Books 2 and 3.

The new project generated quite a stir in the mathematics education community and many important contacts were made. Among those who were to become actively involved were the eminent topologist Peter Hilton (of the State University of New York at Binghamton) and the mathematics educators Max Beberman (of the University of Illinois at Urbana-Champaign and director of the University of Illinois Committee on School Mathematics [deceased, February 1971]) and Gerry Rising (of the State University of New York at Buffalo).

## 1968

In the fall, Lennart Råde came to Carbondale as mathematician-in-residence for the 1968 – 69 academic year. During that time, he wrote a book entitled "Finite Probability Spaces" that would subsequently be incorporated into the *EM* series, and he planned and conducted an International Conference on the Teaching of Probability and Statistics. The conference was attended by many luminaries in the international mathematics and mathematics education world, including Arthur Engel (of the University of Frankfurt, Germany, who later would serve as coach of the West German Mathematical Olympiad team). In the following years, Engel would write two book-length

chapters for *EM* Book 0, write the supplementary *EM* Problem Book, and make significant contributions to the development of the CSMP elementary school curriculum.



**Lennart Råde & Burt Kaufman**

During the same year, the mathematics educator Peter Braunfeld (of the University of Illinois at Urbana-Champaign) and the algebraist W. Eugene Deskins (of the University of Pittsburgh) became involved with CSMP. Braunfeld was to contribute to a number of the *EM* Book 0 chapters as well as providing many ideas for the elementary curriculum, while Deskins was to write two *EM* Book 0 chapters, *EM* Book 10, “Groups and Rings”, and a preliminary version of the *EM* calculus course, Book 7.

### **1969**

During the summer, Burt attended the first conference run by the International Commission on Mathematics Education, held in Lyon, France. There he met the Belgian mathematics educator Frédérique Papy [deceased, September 2005], who,

with her mathematician and methodologist husband Georges Papy (of the Free University of Brussels, Belgium), was to have a seminal influence over the eventual form, style, and content of the CSMP elementary school curriculum.

## 1970

In the spring, CSMP and SIU hosted an International Conference on the Teaching of Geometry, under the leadership of Hans-Georg Steiner. Once again, an illustrious group of mathematicians and mathematics educators were gathered together.



**Burt Kaufman & Hans-Georg Steiner**

In the summer, Edward Martin joined the CSMP staff fresh out of the University of Cambridge, England, beginning a professional collaboration that continues to this day. The efforts of the CSMP developers were divided between creating ideas and writing materials for the developmental work going on at the elementary school level, observing classes in local elementary schools where the newly-written materials were in use, and teaching *EM* classes at the secondary level. (Throughout the time that CSMP was in

Carbondale, *EM* classes were taught at the CSMP offices to students who were bussed there from the city's junior high and high schools just for their mathematics classes.) Some of the *EM* teaching was experimental in that it formed part of the ongoing, interactive process of writing new books for the *EM* series, while the rest of the teaching used *EM* texts that had already been through this process and existed in published form.

In the fall, an International Conference on the Teaching of Algebra was held under the leadership of Braunfeld and Deskins. Attendees included the eccentric, itinerant Hungarian mathematician and discoverer of mathematical child prodigies, Paul Erdős [deceased, September 1996], and the flamboyant educator and inventor of the computer language LOGO, Seymour Papert (of the Massachusetts Institute of Technology).

Work continued on completing the *EM* series. The oversight of Book 0 had now fallen to the mathematician and educator Vincent Haag (of Franklin and Marshall College [deceased, December 2003]), who had been one of Burt's college professors, had participated in the original three planning meetings in 1965, had been a member of the Nova Mathematics Advisory Committee, and had succeeded Råde as CSMP mathematician-in-residence. Exner was completing the production of Books 1 – 6; Lowell Carmony (then one of the CSMP Teacher/Writers and now Professor Emeritus of Mathematics and Computer Science at Lake Forest College, Lake Forest, IL) was producing Book 8 and collaborating with the geometer Robert Troyer (also of Lake Forest College) in the production of Book 9; and discussions were taking place with Deskins, Haag, and others about what form Book 7, the *EM* calculus book, should take.

## 1971 – 72

A major crisis blew up that threatened CSMP's very existence. The Nixon Administration set up the National Institute of Education (NIE) and announced the transfer from the U.S. Office of Education to NIE of the funding of all educational research projects. Every such project in the country had to submit — at two months' notice and following guidelines that changed three times during the writing period — a comprehensive report to NIE essentially justifying its continued existence. The Office of Education set up a number of specialist panels of outside advisors, each panel to evaluate a specific type of program.

CSMP was evaluated by Panel D, which was concerned with curriculum projects in general. It turned out that CSMP was the only mathematics project under review and that the 10-member panel included only one person proficient in mathematics (the other nine members comprised a musician and a collection of psychologists and program evaluation generalists). They based their findings on the hurriedly-produced report and an account given by a panel officer of a 4-hour briefing session with one member of the CSMP staff. There was no direct contact with CSMP at all.

Not surprisingly, Panel D arrived at some monumental misconceptions and recommended the phase-out of CSMP by June 1973. This generated a storm of protest from around the world, including the marshaling by Peter Hilton of written support for CSMP and its work by more than 3,000 practicing mathematicians and mathematics educators from the nation's colleges and universities. Perhaps in response to this groundswell, and most certainly as a result of the involvement of the renowned mathematician Andrew Gleason (of Harvard University) in the review of the panel's findings, Panel D's final report ended up commuting CSMP's death sentence to a 50% budget cut, on condition

that a significant portion of the remaining money should be spent on a large-scale evaluation of the project's work.

### 1973

In the summer, Frédérique Papy joined the staff as Director of Research. She was to continue in that position, guiding the direction of the development work at the elementary level, writing profusely, and teaching in the experimental classes for the next five years. Her presence on site prompted periodic visits to Carbondale (and later, St. Louis) of her husband, Georges Papy, whose idiosyncratic but exceedingly insightful writings and seminars were to become a major source of inspiration to the CSMP staff.

### 1974

Edward Martin became Senior Editor of the *EM* series, charged with producing a second edition that implemented a uniform editorial style and took into account the experience derived from several years of classroom use of the first edition. In addition to his continuing responsibilities as a Teacher/Writer, he was also to upgrade the quality of the Teacher's Manuals and Answer Keys for the series, writing those that did not already exist.

By this time, word of the materials being produced by CSMP had spread widely, and a number of teachers from schools across the country were using the *EM* books in their classrooms after having undergone training at CSMP during summer workshops. Martin's responsibilities included helping to run the training workshops, providing teachers with any necessary support during the school year, troubleshooting delivery problems, answering questions that arose during the course of teaching, alerting people to errata, and so on.

### 1975

CEMREL had moved into more extensive premises in St.

Louis during 1972. Since the ensemble of CEMREL's projects were being touted as meeting the needs of “the school of tomorrow”, increasing pressure had been exerted on CSMP to move from Carbondale to St. Louis so as to facilitate collaboration between CSMP and the other CEMREL projects. Since the lifeblood of CSMP's work was daily classroom contact with children, this pressure was resisted until there was an assurance that no break in its classroom-based research and development would occur. In 1975 a suitable agreement was reached with the schools of University City on the western edge of St. Louis, so the project moved out of Carbondale during the summer.

## 1976

In the summer, Edward Martin left CSMP to take up a post as Mathematics Department Chairman of a high school in Glasgow, Scotland. He continued, however, as Senior Editor of the *EM* series, working in his spare time and returning to St. Louis for 4 – 6 weeks each summer to help with training workshops and do some concentrated writing. The amount of new writing required in producing the second edition had substantially increased as a result of a decision in 1975 no longer to use the naïve set theory that had formed the foundation of the first edition from Book 2 onward. This decision was in response to a number of criticisms that had been made by specialists in the foundations of mathematics who complained that the wrong impression of such basic issues was being given to students. The logician and set theorist Wilson Zaring (of the University of Illinois at Urbana-Champaign) offered to rewrite Books 1 – 3 and the beginning of Book 6, which encompassed the principal locations where foundational matters made an appearance. During 1976 – 84 Martin carried out the necessary editing of Zaring's work as well as completely rewriting Books 4 and 5 so that they matched well with the other revised books, reorganizing their contents in a way that classroom

experience had shown to be more manageable. He also re-edited or radically revised all fourteen Book 0 chapters.

## 1978 – 83

While teaching the *EM* materials in the University City schools, Burt began to feel that an audience of much broader geographical scope could be reached if only the organization existed to make it possible for the many small school districts and private schools in the metropolitan St. Louis area to work together. So in 1978, with CEMREL's help, he set up the first Project MEGSSS (Mathematics Education for Gifted Secondary School Students). After school each day and at no cost to the school system, students from most of the western suburbs of the city were transported by parents to the CSMP offices, where they studied the *EM* materials. As their part of the arrangement, the schools and school districts participating in this project allowed the MEGSSS students to take a study hall instead of their regular mathematics class. The project proved so popular with both students and parents that the decision was made to expand its scope, starting the 1979 – 80 school year in separate premises at Kirkwood North Middle School in a southwestern suburb of St. Louis.

By this time, CSMP's developmental work at the elementary school level had essentially been completed, and all that remained was the time-consuming and laborious task of producing the resulting teacher and student materials in revised, publishable form. Burt felt that the time had come for him to relinquish the reins of leadership and move on to the next challenge, namely that of developing possible models of use of the *EM* materials, starting with the large-metropolitan-area-many-small-school-districts model.

CEMREL had helped Project MEGSSS obtain sufficient federal funding to enable it to function through November

1981, but no longer. With the prospect of the eventual closing down of the project as a stimulus, the parents of MEGSSS students incorporated the project during 1980 and set up a tuition fee structure which meant that, when the federal money dried up, the project was able to support itself. Indeed, its operations continue to this day.

Having achieved his immediate goal of establishing a functioning model of *EM* usage, Burt left St. Louis in 1981 and returned to South Florida. There, he re-established contact with Larry Wantuck, the Curriculum Supervisor for Mathematics in the Broward County Public Schools, who had worked under him in the sixties during his Nova days. He interested Wantuck in the possibility of setting up a Project MEGSSS in Broward County, one more suited to the needs of a large countywide school system. In the course of time, Grace McDonald, the Curriculum Supervisor for the Gifted Program, became involved, with the result that School Board approval to start Project MEGSSS in Broward County was granted in August 1982. The process of identifying suitable students began, and the first Broward County MEGSSS students embarked on their studies at Plantation Middle School in January 1983.

### 1983 – 89

The next school year, classes also began at Driftwood Middle School, where Burt began training Mathematics Department Chairman, Dennis Caruso, to teach the *EM* curriculum. Dennis, in turn, began training Marcia Friedman. In 1984, all the students and the teaching team converged on Plantation Middle School, where they were joined by Peg Carson. The pioneer group of middle-schoolers (among them Ms. Carson's son) studied the *EM* materials as their mathematics course throughout their middle school and high school careers.

In the summer of 1985, Burt was rejoined full-time by Edward Martin, who had just completed a two-year stint as curriculum-writing team leader for a publishing-house-sponsored mathematics curriculum development project based at the University of Bath in England. Martin brought with him a colleague with whom he had shared an office at Bath, the computer science specialist Iain Ferguson, who soon set about developing what was to become the MEGSSS computer science curriculum. To begin with, the programming language used was Seymour Papert's LOGO. But, following contact with and an on-site visit from Dan Friedman (professor of Computer Science at Indiana University, Bloomington, IN), the switch was made to Scheme. Burt collaborated with Ferguson and Martin in producing a published version of the resulting curriculum: *The Schemer's Guide*.

MEGSSS moved the project offices and base of operations to Plantation High School when the lead group of students transitioned from middle school to high school, leaving the middle school teaching in the more than capable hands of Caruso, Friedman and Carson. Upon the graduation from high school of that first class in 1989, the School Board decided, as a cost-saving measure, to move Project MEGSSS to Nova Middle and Nova High School, since at the time the Nova schools were open-boundary and had an established countywide transportation network. In this way, the mathematics curriculum that was conceived at Nova returned to Nova after an interval of 26 years.

### **1989 – 93**

For the first year at Nova, Edward Martin commuted back and forth to Plantation High School so that the MEGSSS students who were high school seniors that year would not have to switch schools in order to continue their MEGSSS course work. Also moving to Nova Middle School was the

teaching team of Caruso, Friedman and Carson.

Among the highlights of these years was the achievement of Daniel Dugger (now Assistant Professor of Mathematics at the University of Oregon, Eugene, OR), who, as a high school senior in 1990, submitted an original research paper entitled “On the Homomorphisms between Finite Abelian Groups” to the 41<sup>st</sup> International Science and Engineering Fair, winning — among several other honors — the first place award from the American Mathematical Society.

Throughout this period, the presence of Project MEGSSS (and the students it attracted) at Nova High School significantly boosted the number of seniors graduating from that school who were accepted to the most prestigious universities in the land. Notwithstanding, when a statewide budget crisis in 1992 forced a \$42 million cut in education spending, the School Board tapped Project MEGSSS as one of the programs whose closure would help the county to meet its obligations under the cost-cutting requirements that had been imposed upon it. The MEGSSS parents' group mounted a fierce campaign demanding the continued provision of the program. As a result, a compromise was reached whereby the School Board would continue to employ the MEGSSS middle school teachers, Caruso, Carson, and Friedman, while a not-for-profit organization, the Project MEGSSS Foundation, formed by the parents, provided the funds for the high school portion of the operation. This arrangement lasted only through the 1992 – 93 school year, whereupon the School Board definitively wound up the project.

### **1993 – the present**

At the insistence of the parents' group, Burt — together with his son, Terry, and his colleagues, Martin and Ferguson — established the Institute for Mathematics and Computer

Science (IMACS) in July 1993 for the purpose of making the Project MEGSSS curricula in mathematics and computer science available within the private sector. When classes opened in the fall, IMACS began operations with a grand total of 37 students.

From those humble beginnings, IMACS has extended its reach across all pre-college grade levels, developing a multi-level mathematics enrichment curriculum (inspired by the CSMP elementary curriculum) for the elementary grades, an elementary computer enrichment curriculum that leads into an advanced, university-level computer science curriculum, and an online, distance-learning version of the early *EM* curriculum. In addition, IMACS offers an introductory course in electronic engineering that was developed by a senior Motorola engineer.

Particularly gratifying to Burt has been the hiring of two former students as full-time staff: Ted Sweet, who was a member of the first Plantation High School graduating MEGSSS class and who has since earned his Ph.D. in Probability from the University of California at Los Angeles, and Brandi Parsell, who followed the MEGSSS program through her sophomore year at Plantation High School and who came to IMACS' attention again when she was teaching at a tough school in Fort Lauderdale after having earned her BA in Mathematics at the University of North Carolina at Chapel Hill.

Within its Broward County operation, IMACS has (so far) peaked at a little over 800 students, and affiliate enterprises offering the IMACS curriculum are currently in operation in the neighboring counties of Miami-Dade and Palm Beach as well as in Connecticut, Philadelphia, North Carolina, and St. Louis.

The day-to-day operation of IMACS in Broward County is now under the direction of Dr. Sweet, who in addition is contributing to the ongoing development work by creating an exciting new elementary school curriculum in Virtual Robotics.

The philosophy of mathematics education and the vision that Burt developed back in the 1960s have given rise to a gold mine of wonderful educational opportunities that is very far from being mined out. On the contrary, it seems set to continue to bless generations of talented youngsters for many years to come.





*Friends*



## *A Great Guy*

Burt may well be my oldest friend. We went to elementary school together, grew up in the same neighborhood, attended high school together, and I went to his father's camp (HaWaYa).

I “picked up” his future wife on the beach, but Burt took her away from me on the same day.

Our social lives were full of excitement. Joe Shearer and I visited Burt at Franklin and Marshall College on many weekends. Burt bought his first color TV from me.

The only area in which we were not close was the “new math”. To this day I still haven't even learned the old math.

My grandson, Kyle, loves IMACS — he studied and interned there. His little sister, Kaleigh, goes there now and also loves it.

Burt is a great guy who has made a wonderful contribution to the lucky kids who had, and still have, the opportunity to learn from him.

Best wishes,

*Dick Manson*

# The Best Manager

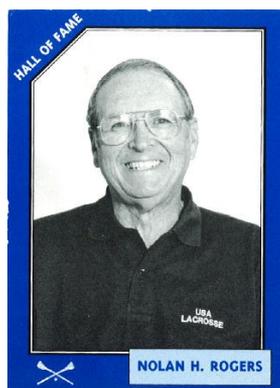
Burt,

Congratulations to you and Pinky on your retirement. You were the best manager we had and your math genius was evident since we had the best stats in the MSA. All the best. Hope to see you in the future.

## *Nolan Rogers*

National Lacrosse Hall of Fame Inductee,  
1997

*I was a classmate of Burt's in high school and worked for his Dad at summer camp. Burt's Dad, Dave, was my guidance counselor in high school and encouraged me to go to Duke. His Dad was one of the country's top football officials.*



*Enclosed are some items for Burt. I have not seen Burt and Pinky for many years. I was at their wedding. I dated some business cards to bring him up to date about my life.*



MARYLAND DEPARTMENT OF TRANSPORTATION

**NOLAN H. ROGERS**  
ASSISTANT ATTORNEY GENERAL  
CHIEF COUNSEL

*1960-1988*

STATE HIGHWAY ADMINISTRATION  
707 NORTH CALVERT STREET  
P. O. BOX 717 • BALTIMORE, MARYLAND 21203 301-333-1400

**STATE OF MARYLAND**  
WILLIAM DONALD SCHAEFER, GOVERNOR

**NOLAN H. ROGERS**  
EXTRADITION OFFICER

*1971-1992*

OFFICE OF THE SECRETARY OF STATE  
STATE HOUSE  
ANNAPOLIS, MARYLAND 21401  
(301) 333-1400



**UNITED STATES CLUB  
LACROSSE ASSOCIATION**

**NOLAN H. ROGERS**  
COMMISSIONER

HOME:  
2400 LARRYVALE ROAD  
BALTIMORE, MD 21209  
(410) 358-5033  
FAX: (410) 358-2474

Oriole Park at Camden Yards  
(410) 576-0300 Ext 358  
FAX (410) 539-7640

*1980 - Present*



**United States  
Lacrosse Team**

**NOLAN H. ROGERS**  
General Manager

Home:  
2400 LARRYVALE ROAD  
BALTIMORE, MD 21209  
410-358-5033  
FAX 410-539-7640

The Lacrosse Foundation  
113 West University Parkway  
BALTIMORE, MD 21210  
410-235-6882  
FAX 410-366-6735

*1986 - 1998*



Maryland Stadium Authority

**NOLAN H. ROGERS**  
Assistant Attorney General

WORLD TRADE CENTER  
Suite 2450  
Baltimore, Maryland 21202

*1988-1992*

301-333-1560



*1992 - Present*  
MARYLAND STADIUM AUTHORITY

**NOLAN H. ROGERS**  
TOUR DIRECTOR  
AND  
SPECIAL PROJECTS

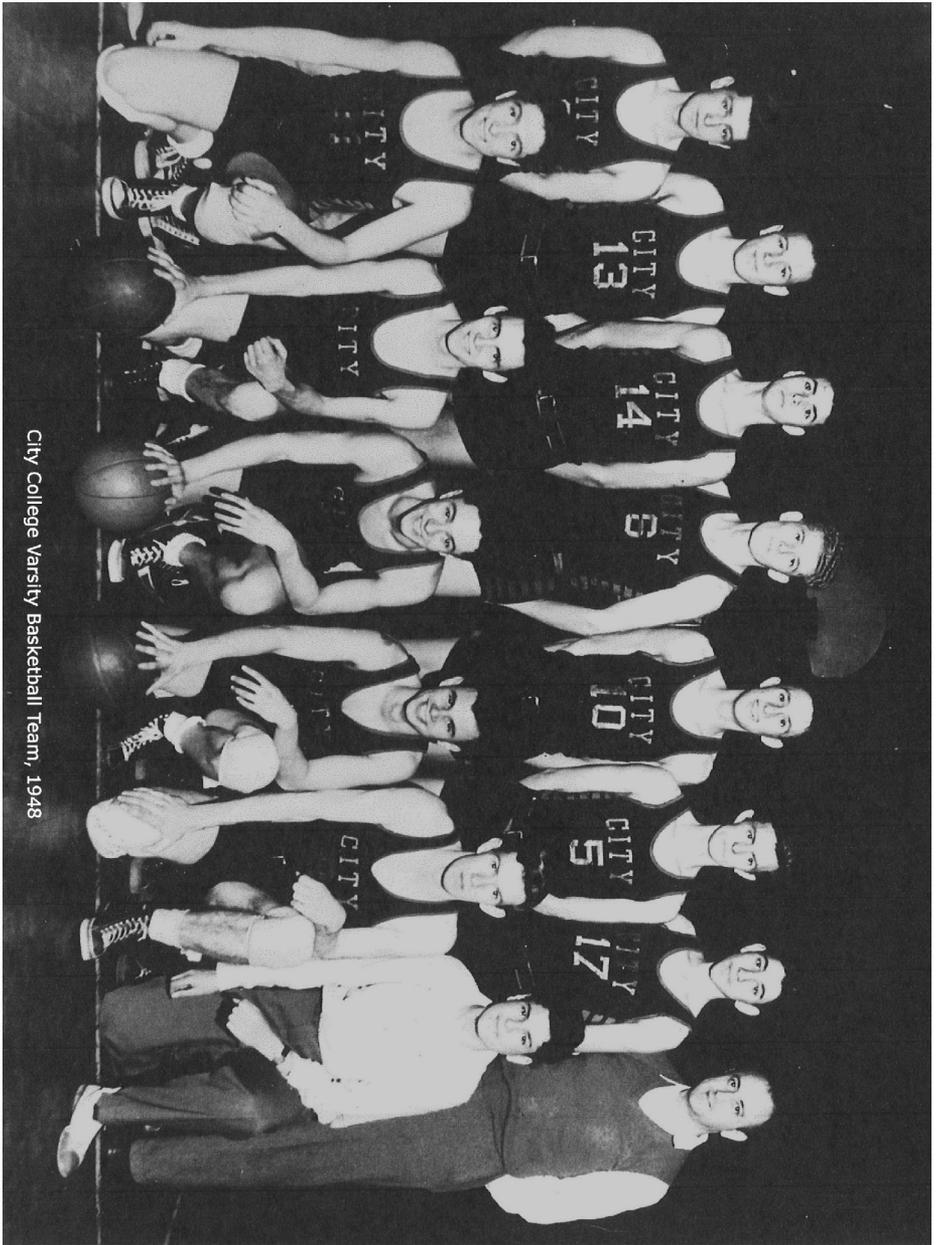
THE WAREHOUSE AT CAMDEN YARDS  
333 WEST CAMDEN STREET, SUITE 500  
BALTIMORE, MARYLAND 21201-2435

(410) 576-0300 Ext. 358  
FAX (410) 539-7640

**NOLAN H. ROGERS**

- Baltimore City College, All Maryland Team, Basketball
- Duke University Varsity Captain 1953, All Dixie 1952 - 1953, All American 1953, All Star Game 1953
- Maryland Lacrosse Club Player 1953 - 1957, President 1982 - 1987
- Maryland Lacrosse Club Hall of Fame inductee 1985
- Towsontowne Youth Lacrosse Program Director 1975 -1984
- Maryland Special Olympics Instructor 1982 - 1993
- Lacrosse Foundation and Hall of Fame President 1985 - 1987, Director 1982 - 1989
- Greater Baltimore Lacrosse Foundation Hall of Fame Inductee January 1997
- United States Club Lacrosse Association Commissioner 1996 -
- United States Lacrosse Team General Manager 1987-1990 & 1994 World Championship Team Manager
- 1989 Howard E. Johnson Memorial Trophy Recipient
- Howdy Myers Man of The Year Award Recipient - 1991

**NATIONAL LACROSSE HALL OF FAME INDUCTEE  
JUNE 6, 1997**



City College Varsity Basketball Team, 1948

## *Informative about Sports*

Burt Kaufman really impacted my life because he married my best girlfriend. I was there when he first laid eyes on Pinky in 1952 on the beach during our winter break. I was a bridesmaid at their wedding and I spent a summer in Maine with Pinky and Burt. They chauffeured me on our days off from camp all around the state even though Burt almost got a ticket for hitting an animal on the highway. Burt is very good at being the Innocent One. However, I really didn't get to know Burt until 1978 when we started spending time in Fort Lauderdale.

Burt gave Pinky and me so much “girl-time” together because he and my husband, Alan, would talk for hours about football and baseball. We each cheered our favorite home teams and our new Florida home teams. Burt is more informative about sports than anyone else that my husband ever knew. Burt loves to go to the Marlins game with us because he gets to eat fried chicken and brisket sandwiches which we brought for dinner. I never really knew if he minds that I am the only one dressed in *red* when the Cincinnati team plays the Marlins.

Burt tried to teach me the math the 7-, 8- and 9-year-olds were working on at IMACS and I really tried to catch on. I thought I had a talent for numbers but when Pinky and I tried to figure out how much we should leave a waiter at a restaurant, it was clear that Burt did a better job. We never admitted that we should let him take care of it but if we just had a paper and pencil!

Burt drove Pinky to distraction because she never felt he was eating the right things, but you could always tell that in his own way he listens to her. I never saw anyone take so many vitamins. Pinky always said that Burt always remembers her in the most wonderful way and that meant he really loved his wife for over 50

years. I have loved my friend Pinky for over 65 years, so I think that means that I love Burt Kaufman too.

*Marilyn Hornstein*

## *High Expectations*

Dear Burt,

I have been informed that you plan to make adjustments in your involvement in the very special mathematics program that has meant so much to so many young people over the years. Your vision and tireless commitment to this endeavor have resulted in a demonstration of the tremendous impact that high expectations supported by respect for human dignity can have on student learning. The teaching/learning strategies you have employed have also demonstrated that only our knowledge and imagination bound the mathematical concepts that young people can learn.

You should know that I cherish the memories of our experiences at the University of Notre Dame in the early sixties. The time that we spent in class and out of class contributed significantly to my personal and mathematical growth and development. Those times have resulted in a very special bond in our friendship over the years. The inclusion of our families in special activities during those times has also made very wonderful lasting impressions. In this regard, I think of how Pinky always welcomed and embraced your friends. I also think of the unconditional love and unwavering support she has provided you over the years.

I certainly wish you the very best in making adjustments in your work. Please do so knowing that your contributions to mathematics education have been very special and inspirational to students and professionals in the field.

*Curt Jefferson*

Professor, Academic Affairs  
Santa Fe Community College, Gainesville, FL

## *Tremendous Talent as a Teacher*

Dear Burt:

Where do I start? Could it be the first night we met at Notre Dame when you sat on a chair with no seat to eat dinner? (Pinky was in Cincinnati.) Was it your 30<sup>th</sup> birthday dinner, having lasagna in South Bend? Or maybe, and most historic, was it typing a thesis where the only thing I could understand or pronounce was the first sentence. Whatever it was, that year in South Bend brought the Kaufman family and my oldest, dearest friends into my life.

Needless to say, the blizzards and tornadoes of Indiana, followed by a miserable winter in Michigan, brought us together once again in warm and sunny Florida. (Of course, I didn't go to Michigan, but gave into the social pressure of leaving God's country in California to join you!)

Carbondale? Where is Carbondale? There we were, another living room with no furniture, but a great TV and an accommodating chair for football! Where did all those mathematicians come from? It was fun listening to all the talk with all of the visitors — all led by you of course. Probably, if it hadn't been for you and my dearest friend Pinky, I would not have survived. You two were always there for me when no one else was. The gifts of your friendship to Janice, Lisa, and me were the greatest gifts you can give. You were and are “my family.”

Visiting you last year was awesome! Your tremendous talent as a teacher has always been a wonder and a model. If I could be half the teacher that you are I would feel a sense of achievement. You have touched the lives of so many and been an inspiration to all of us.

Retire? Not you, Burt. Thank you for being who you are. I'm not sure what I believe, but if there is a God, this verse from the New Testament is who you are:

Let your light so shine before men  
That they may see your good works  
And glorify your Father who is in heaven.

*Linda Gillespie*

## *This Wonderful, Humble Man*

It is a great privilege to have known Burt Kaufman these past forty-four years. This wonderful, humble man has unequivocally devoted more time and effort to expand mathematically the minds of children and others, more than anyone could possibly imagine. His dedication and accomplishments will live on for many, many generations to come.

Sincerely,

*Eve Pribble*

## *Dedicated to His Chosen Profession*

Burt Kaufman is a man to know. He is one of the most dedicated persons to his chosen profession I have or will ever know. We have been friends since 1962. My general memory is of Burt watching football on Saturday and Sunday. How dare Pinky utter a word! So she and I would go shopping. And we did a good job of it. That was the price he paid for his football games.

Then, when Burt took on Nova and the new math program, that was a wonder to watch. He made changes, helped children attain areas of learning they thought they would never get to. But he just has a way about him that kids want to learn from him.

One day I went into one of his classes, sat in the back of the room and watched a man I had never seen before get kids excited. His face lit up; he was so happy with these children. The hands would fly up as he asked questions and the kids wanted to be the first to answer. This is a day that I never forgot and Burt showed all the love of his teaching profession on that day to me. But this happened every day in his classes, I would imagine.

Burt has made a difference. I also saw that in his son and in his grandson Zak. Those genes are really working and continue to move on in the Kaufman family.

Greatness comes in various packages.

*Sherry Friedlander*

Director, *A Child Is Missing* [[www.achild dismissing.org](http://www.achild dismissing.org)]

## *Through Joys and Sorrows*

When Burt brought his family and the CEMREL (now IMACS) operation to Carbondale, IL, many, many people were thrilled. Those people included the Simons — John, Harriet, Philip, and Ellen. Philip, a good math student, was entering junior high school at that time and ripe for everything Burt's program offered. A fringe benefit was that most of Philip's best friends (now including Terry Kaufman) also loved math, making for a very happy gang of guys. The Carbondale school system desperately needed just this kind of enrichment. Many students enrolled in Burt's program continued on to make careers in this field.

Our two families (including Pinky and Lynn) became close and have continued their association — through joys and sorrows — over the years.

We are most grateful for all the time and effort that Burt has put into his profession. Through his dedication and perseverance he has opened doors for many young students.

We love you, Burt.

Love,

*John and Harriet Simon*

Harriet Furst Simon

Textual Editor, Center for Dewey Studies

Southern Illinois University, Carbondale, IL

## *Enjoying the Sun*

Burt,

Congratulations on your recent retirement. I remember those days in Carbondale, IL when I first met Pinky and you. Pinky and I worked together at Tri-County Special Ed District as school social workers. She and I hit it off immediately and soon I was a regular visitor at your home. That's when I got to know you, Terry and Lynn and of course the various dogs that your family had.

One of my most vivid memories is of you sitting near the backyard pool enjoying the sun and getting as brown as a berry. The others include you setting the Beta Max to record baseball games and bemoaning the fact that the Holiday Inn had the “best” restaurant in the area and there was nowhere to get a good gourmet meal! I also remember the weekend that you took Terry and Lynn to Chicago for the Orioles' series with one of the Chicago teams and I joined you. What fun!

Finally, I shall always cherish the titles you bestowed on me and Pinky. She was Queen of Small Talk and I was her prize pupil — perhaps a Princess of Small Talk.

Take care of yourself and keep enjoying life with your Queen.

Best Wishes,

*Carolyn Puricelli-Boyd*





Colleagues



## *Quality and Originality*

I would certainly like to join in marking Burt Kaufman's retirement.

First, I want to express the hope that his health will allow him to enjoy the peace and quiet which he so richly deserves, in his retirement — he has surely earned these.

Second, I want to express my respect for the quality and originality of the work he has done to raise the mathematical level of secondary school mathematics. He has had excellent ideas and has always tried to ensure that these ideas are well understood by teachers. He has clearly recognized that any good program depends for its success on the ability of teachers to appreciate the importance and significance of what they are teaching, and to use the most appropriate mathematical techniques and expressions for attracting students to the new ideas being presented.

As I look back on Burt's massive contribution to the reform of secondary mathematics education, I cannot help but reflect on the uniqueness of that contribution; and I am bound to hope that he will continue to exercise a strong influence.

With all good wishes to him and to all my friends at CSMP,

Yours,

*Peter Hilton*

D.Phil., Mathematics, Oxford University, 1949

Ph.D., Mathematics, Cambridge University, 1952

Distinguished Professor Emeritus of Mathematics

Binghamton University, State University of New York

## *An Amazing Experience*

I was a member of the 1963 Cambridge Conference on School Mathematics, where 29 mathematicians expressed their thoughts for the evolution of the pre-college mathematics curriculum over the next few decades. It seems that many people thought this effort was just idle dreaming and could not be widely implemented. A few years later, Burt Kaufman invited Ted Martin from MIT and me to visit his class at Nova High School. What I saw amazed me!

First of all, the children in the class were of all ages ranging from about 12 to 18. They were selected for the class not by age but by their mathematical knowledge and ability. But it was the content of the course and the performance of the students that surprised me most. The students were studying algebra at the time — not the algebra usually associated with high school, but rather abstract algebra (groups and rings) usually not encountered until advanced undergraduate courses in college. It was clear from the way the enthusiastic students answered questions and gave solutions to the problems that were posed that they were not just memorizing some facts; they fully understood the axiomatic approach and were able to derive new theorems from those already proved. I had never seen a class like this before and I realized that the Cambridge Conference had been quite conservative in its visions. Burt was really the visionary who conceived of the program and carried it out magnificently.

I next was impressed by the work that Burt, Ed Martin, and Iain Ferguson were doing with computer programming. Dan Friedman and I had been working on the book *Scheme and the Art of Programming* when we heard about Burt's group's interest in computing. Dan visited them in Florida and called their attention

to Scheme. As a result, Iain, Ed, and Burt published *The Schemer's Guide*, a middle and high school text on programming using Scheme that imparts a deep knowledge of the foundations of computing rather than the rote memorization of rules usually taught in many introductory courses. This approach to computing is similar to the approach to mathematics that I saw at Nova High School.

Burt not only taught exciting classes based on a curriculum he developed, but he also acted as a missionary to spread the ideas and make them available to others. This has been the goal of each of the curriculum development groups he either set up or worked in, culminating in the current IMACS. I want to wish IMACS continued success and to wish Burt the most gratifying years in his retirement.

*George Springer*

Ph.D., Mathematics, Harvard University, 1949

Professor Emeritus of Mathematics and Computer Science

Indiana University, Bloomington, IN

## *Efficiency*

I always admired Burt Kaufman for his efficiency and his handling of the team, especially in my case.

For some time Hans Steiner (now deceased) was co-chairman of the CSMP Project. Steiner wrote a brilliant letter to the [West German] Ministry of Education to get for me a one-year leave from school. To the amazement of my school director I received an affirmative reply. So in 1969 Steiner hired me to work for the CSMP Project in Karlsruhe. Every day I traveled the 50 miles from Stuttgart to Karlsruhe and back.

Steiner said to me: “Burt Kaufman wants you to write a book on probability.” After two months, Burt came to Karlsruhe to see how Steiner was doing. Steiner presented to him my

Chapter 8: An Introduction to Probability, 127 pages.

Burt immediately started to read it, puffing his pipe. As he went on reading, his face became brighter and brighter. Then he came to me, clapped me on the shoulder, and said: “Arthur, come to Carbondale. You can work there and teach this course.” So I came to Carbondale in 1970 and worked there, staying for nine months. Every day I gave a lesson to 8<sup>th</sup> graders, and Burt came each time to attend my lessons.

This was the start of my cooperation, which continued for four years through 1974.

I am still alive and very well, although I had three brain operations in 1982. From then on, I very, very slowly began to recover. By 1987 I was well enough to write my first book a.o. (after operation), 1991 my second, 1993 my third, 1997 my fourth, and now I have practically finished my fifth and very last book — I promised this to my wife.

This last book is in a way a tribute to Burt Kaufman, since it grew out of two lessons to 4th graders in Carbondale, IL. It is an elementary book of less than 200 pages for American mathematics teachers, and undergraduate university students. It also could be used in senior high school.

## *Arthur Engel*

Professor Emeritus  
Institut für Didaktik der Mathematik  
Johann Wolfgang Goethe Universität  
Frankfurt am Main, Germany

*Awarded The Federal Cross of Merit in 1990 by the President of the Federal Republic of Germany “for outstanding contributions to mathematics education”.*

*One of the first three recipients in 1991 of the David Hilbert Award by the World Federation of National Mathematics Competitions “for outstanding international contribution to the learning of mathematics by the use of mathematical challenges”.*

## *The Very Finest Classroom Mathematics Teacher*

I first met Burt Kaufman at Notre Dame in about 1960. We were enrolled there in a course of studies directed by Arnold Ross. Shortly after that, I joined Burt's MEGSSS and CSMP boards of directors and was closely associated with his work over the next forty years.

Although our ride together was often bumpy, it was also a wonderful experience for me, an experience for which I cannot offer him enough thanks. Burt provided me the opportunity to associate with some of the world's finest mathematicians and math educators, among them: Vince Haag, Peter Hilton, Bob Exner, Peter Braunfeld, Frédérique and Georges Papy, Arthur Engel, as well as Burt's superb creative editor, Ed Martin. And he exposed me to some of the most interesting mathematical content and exposition ever developed. (I cannot resist adding that he also provided me an excuse to escape Buffalo's Blizzard of 1977.)

Now at the time of his retirement, it is appropriate to reassess Burt's record and I offer here my personal view.

First, I consider Burt the very finest classroom mathematics teacher I have known, without exception. And here I am comparing him with teachers like Max Beberman, Dipendra Bhattacharya, Bob Davis, Arthur Engel, Frédérique Papy, Arnold Ross and Bob Wirtz, all of whom I knew personally and watched teach many times. Burt shares many fine qualities with these remarkable expositors. Where he exceeds them is in his sensitivity to individual students and his ability to encourage them to become independent thinkers. I suspect that Burt's record in setting school students on a path to exceptional achievement in

mathematics is at least equivalent to that of R. L. Moore for university students.

Second, I consider Burt's knowledge of school mathematics only equaled by that of Don Stover of Arlington, VA. While Don probably knows more about extensions of standard school content, Burt knows more about the interplay of that content with higher math. None of the current United States commercial or experimental textbook authors can approach these two. The only ones I know who come close are Bert Waits, Harold Jacobs, the team led by Richard Rusczyk, and Zal Usiskin.

Third, Burt has done more to extend our serious thinking about school mathematics than anyone active during his time, and I include among those he surpassed Ed Begle and Max Beberman. He accomplished this by insisting on interacting at their level with mathematicians of the highest quality.

What I find irritating is the fact that few in the mathematics education community even know Burt or know of his many contributions that include the MEGSSS program, the Elements of Mathematics texts, the CSMP elementary school materials, the Mathematical Challenge series, and now his programs in Florida. Sadly, the leaders in mathematics education have never been well enough prepared to understand and thus recognize his contributions.

Of course, I have written this as one who has long basked in Burt's and Pinky's friendship, but my valuation of him is independent of that. I wish my dear friend Burt the very best in his retirement; however, I hope and assume that he will never be unavailable to his colleagues.

Quite simply, thanks.

*Gerry Rising*

Ph.D., Mathematics Education, New York University, 1965  
Distinguished Professor Emeritus, State University of New York  
Co-Director, University at Buffalo Gifted Math Program

# *Unwavering Commitment*

Dear Burt,

After so many years without contact, I was really pleased to get Ed Martin's letter about your upcoming retirement. Naturally, his letter caused me to do some reminiscing about the wonderful years it was my privilege to spend at CSMP, and I can tell you without hesitation that those years represent some of the best, richest and most productive years of my professional life.

I don't know what you've been up to professionally for the last twenty years or so, but I can safely say that even if you hadn't done anything further in math education (which I'm sure is not the case!), the work you did, and the leadership you provided, back then at CSMP, would make you one of the important figures in 20<sup>th</sup> century American math education.

I feel privileged to have served on the CSMP advisory board and to have worked with the writing teams for so many years. And, my God, what an extraordinary bunch the CSMPers were: Bob Exner, Hans Steiner, Peter Hilton, Leonard Råde, Arthur Engel, Gene Deskins, etc., etc. — not to mention the incredible and formidable Frédérique! Those were heady times, and tough ones too — with so many people carping from the sidelines at the work CSMP was doing. I find it amusing that Lauren Resnik (at *that* time “Miss Behaviorist”!) has *now* morphed into a leading proponent of constructivism and “conceptual learning”! I really believe that it was only through your unwavering commitment to bringing good mathematics to kids that CSMP survived so long and accomplished as much as it did. I think it's fair to say that you were an inspiration not only to me, but to all of us.

Nowadays it seems that some of the basic CSMP philosophy

about math ed is out of vogue. But, we're both old enough by now to have seen the never-ending cycle of things in math ed coming and going, only to come back again. Thus, I have faith that, sooner or later, people will return to the notion that mathematics is intrinsically worth doing, and not just for its (so-called) “real life” applications. Speaking of things coming back, here's something that might amuse you: Last year, a group of teachers asked me to talk about “math ed in the old days.” On an impulse, I decided to do a little hands-on lesson about the Minicomputer. It was a *tremendous* success, and I've been asked to do a number of repeat engagements!

To sum up: I think the work of CSMP was a monument to honest, serious, and important work in K-12 curriculum development, *and it wouldn't have been possible without your commitment, leadership, and resilience*. All of us in the math ed community owe you a tremendous debt of gratitude.

I hope that this letter finds you and your family in good health and good spirits. Having “retired” myself some years ago, I can tell you that, for me at least, it's been great fun. My wife Judy and I do a lot of opera, theater, travel, reading, visiting with friends, seeing grandkids, and so forth. I also still do a little “consulting”, but at times and places of my choosing. It's a terrific life!

Enjoy, be well, and keep in touch!

*Peter Braunfeld*

Ph.D., Mathematics, University of Illinois at Urbana-Champaign, 1959  
Professor Emeritus of Mathematics & Education  
University of Illinois at Urbana-Champaign

## *Transforming Idealism into Reality*

Burt, I well remember the excitement of the early years when there were still idealists. Some, like you, transformed that idealism into reality. You were always the core of CSMP. Your demand for the best and most teachable material and content was an inspiration to all who came into contact with you. I was honored to be part of the CSMP group and to be “in residence” in Carbondale for three of the most stimulating years of my professional career. Not only were you a great leader but a good friend. I enjoyed your and Pinky's company and comradeship through those years when CSMP was in its prime!!

I have not been a good correspondent over the years, but both Mickey and I have enjoyed Pinky's Xmas cards and so have kept marginal track of your enterprises. You have continued all these years to teach and produce at the same intensity and quality of those early years. It is a testament to your creativity and your love of teaching and learning.

By the way, CSMP continues to evoke excitement and appreciation. Last week I was talking to a friend at whose house we dock our boat. In the process she said that she had been a third grade teacher and had used a fantastic math curriculum. It turned out to be — you guessed it — CSMP. Wow! A very spirited conversation ensued! Those who really used CSMP loved and appreciated it! Frodo lives!!

Now Burt, you are going to enter another profession, that of “Retirement.” I'm sure you'll devote as much energy to that as you always have to your other activities. I've had more experience than you. Mickey and I both retired in 1998 and have loved every minute. My very best to you and to Pinky during the next chapter.

With warm regards,

*Nick and Mickey Sterling*

Nicolas Sterling

Ph.D., Mathematics, Syracuse University, 1966

Professor Emeritus, Mathematical Sciences

Binghamton University, State University of New York

## *The Right Approach*

Dear Burt,

Congratulations on your retirement. I retired in 1991 and I highly recommend it.

I have fond memories of my work with you and your program. Many years ago, Peter [Braunfeld] and I submitted a proposal to the [Central Midwestern Regional Educational] Lab to train a few experienced teachers in the use of the *EM* materials. Wade [Robinson] agreed to fund it and we set up a special Summer Session here on campus [at the University of Illinois at Urbana-Champaign].

Two things came from that summer's work. I taught the *EM* Logic material and at the end I wrote a critique that you liked, so you commissioned me to write a revision along the lines I had suggested. I greatly enjoyed working on that project. It was my first experience writing for students at the pre-college level.

The other thing that came from that summer session was that both you and Wade liked what you got and wanted a larger teacher training program. It was suggested that the NSF might consider supporting such a program and I was encouraged to arrange a meeting in Washington to discuss our proposal with people in the NSF. When I got things scheduled and notified everyone, Peter told me he couldn't go because we were meeting on Yom Kippur. The Jewish Holidays never crossed my mind when I made the arrangements. I told Peter he had to go. Wade would be there, you would be there, so he had to go. He reluctantly agreed.

On the appointed day, Peter and I boarded the plane, flew to Washington, and we all collected in the designated room at the designated time. I looked around the room and there were only

second-level NSF people in the room, so I asked, “Where is the Director?” and was told: “Oh, he won't be in today — it's Yom Kippur.” I was dumbfounded. We didn't get the money, and my oversight may have been the reason.

I greatly admired your work, especially in developing the *EM* program. I have been out of touch with such things for over 15 years, so I have no idea what the thinking is today, but I thought then, and still do now, that enriching rather than accelerating was the right approach.

Some people can retire and others cannot. I walked out the door and never looked back. I enjoyed my work while I was doing it but I never miss it now that I am not. Peter, though retired, continues to work, as do many of my friends. Whichever road you take, I hope that retirement brings you to a richer, fuller life.

Most sincerely,



*Wilson Zaring*

Ph.D., Mathematics, University of Kentucky, 1955  
Retired Associate Professor and Director of Graduate Studies  
Mathematics Department  
University of Illinois at Urbana-Champaign

## *Turning Conventional Wisdom on its Head*

One afternoon some years ago, I was talking with my colleague Raymond Smullyan about a letter he had just received. The letter directly addressed his most recent book, *To Mock a Mockingbird*. (For those who do not know, *To Mock a Mockingbird* is about combinatory logic. Combinators are just functions with no free variables and they are always presented in Curry form, meaning every function takes exactly one argument.)

Raymond was all excited about the letter, since it came from some students at a magnet high school. Apparently, the high school students were studying his book under the guidance of a certain Burt Kaufman and they had come up with better solutions to some of his problems than Raymond himself had. My interest was piqued when he told me that the high school was in South Florida, since I spent many vacations there visiting my parents. So, I asked him, “Do you think it would be proper for me to send a copy of *The Little LISPer* to Burt Kaufman's group?” He said, “Sure, here's the address.” My simple question and his simple answer led me to meet Burt and to embrace him and his pedagogical ideas.

Burt's belief is that, with proper teaching and young aggressive minds, it is possible to teach very heady mathematics and computer science to sharp secondary school students. Thus, when they go to college, they will be ready for graduate courses. (I was lucky enough to get one such student, and I can attest to the success of that strategy. Ryan Newton stormed into Bloomington and then left to pursue his graduate studies at MIT, his first choice, after three years of undergraduate education. But I digress.)

Burt invited me to entertain his high school students to the wonders of Scheme, a more mathematical variant of LISP. The students and faculty had been working with LOGO. When I found that I out, I knew it would be an easy sell to convince mathematicians that Scheme would be a far superior pedagogical language. I was right. The faculty immediately saw the advantages of Scheme, and started teaching it right away. They wrote books about Scheme, and I was honored to be invited to write a foreword for their *The Schemer's Guide*.

Each succeeding visit that I made to the school left me more excited about what Burt Kaufman's group was accomplishing. They were turning conventional wisdom quite literally on its head. Through Burt Kaufman's efforts, they were making one of my dreams come true. For that, I will be eternally grateful.

With warmest regards,

*Daniel P. Friedman*

Ph.D., Computer Science, The University of Texas at Austin, 1973  
Professor of Computer Science, Indiana University, Bloomington, IN

## *The Pursuit of Excellence*

Well, Burt, the time has come I see. I'm only two and a half years behind you. While my short-term memory seems to be lacking, the past is still vivid in my mind. And what a past it was. As the Supervisor of Gifted Programs for Broward Schools for many years, I remember the first day we met, when you approached me with an idea for a program for mathematically-gifted kids. In Broward Schools, we were in a phase of trying to define the differences between programming for gifted secondary school students and programming for advanced secondary school students. Nationally, the field of gifted education was addressing the same issue, and along you came with MEGSSS.

As an administrator of the program, there were so many precedents set in those MEGSSS years. Here are just a few:

- Paying students to correct assignments of younger students in the program;
- Instituting new state course codes for the MEGSSS classes;
- Using state of the art Audio/Video equipment to teach the program to students in various locations throughout Florida;
- Summer school for incoming sixth grade MEGSSS students;
- Acquiring state math certification for you and your colleagues, without taking the required courses; and
- Working with immigration lawyers to get your English colleagues here to teach in the program.

Looking back on this list, some were not precedent-setting. Rather, they were a first and only. Thanks to you, the lives of many gifted math students were changed forever. Thanks for your unwavering dedication to the pursuit of excellence in educating some of the best and brightest students in Broward County Schools. Good luck to you in your retirement.

*M. Grace McDonald*

Former Supervisor of Gifted Programs  
School Board of Broward County, Florida





Staff



## *Learning and Eating*

I would like to pay tribute to Burt's professional life and how much he has contributed to mathematics education in the US and internationally. I look on my book shelf and see CSMP curriculum materials and International Mathematics Conference Proceedings. Quite an impressive array of contributions. Well done, Burt!

One of my first thoughts about Burt is how much he taught me and helped me through Notre Dame. I struggled there and he would meet with me many mornings at 5am or so, and would teach me a lot about what I didn't know. And that was not an insignificant amount. He is a splendid teacher. And a perk of those early morning meetings was that Pinky introduced me to Cheese Blintzes with fresh fruit jams. Learning and eating — what a delightful combination. Thank you both, Pinky and Burt.

It is a privilege for me to be able to say something at Burt's retirement. He surely has my admiration, and we did a lot together. I say that the part of my professional life as a math educator and later as an educational psychologist in which I feel the best about my contributions is with CSMP and Burt. It was a privilege serving with him. I applaud him and extend my hand to him.

### *Joe Karmos*

Ph.D., Education, Southern Illinois University, Carbondale, IL, 1974  
Professor Emeritus of Educational Psychology,  
Southern Illinois University, Carbondale, IL

# *So Many Memories*

Dear Burt,

News of your retirement reached me twice this week, first from Pinky and then from Ed Martin, of CSMP days.

So many memories, Burt! ... I can't believe it's thirty-five years since I last saw you. I still find it hard to believe *you* are retiring. Talk to me with more respect, man, since I'll hit 84 next May '07!

As you know, I am a member of the Salesians of Don Bosco, with some 3,000 schools and youth centers in 134 countries, and so, since the year 1971 — when I left Carbondale, Southern Illinois University, CSMP and you — and while you kept working with great math and bright students, I have been serving as director of development for our San Francisco province (since I like numbers, they put me in charge of raffle tickets), except for four years in Rome, where I was asked to serve as Vatican director of the documentation, information and press office of *Caritas Internationalis*, the Catholic Church's charity wing.

Do you remember, Burt, how often I would join you, Pinky and your two kids at your Sabbath service Friday evenings in Carbondale. I still remember the *Baruch Adoshem* for the bread and for the wine (did I tell you we also used them every day, in English, when we offer bread and wine at Mass?). And so, dear Burt, when Ed Martin suggested that I send you cordial good wishes for a healthy and happy retirement, I decided to pray God's blessings upon you and upon your family and, if you excuse my Italian and Ashkenazi accent, allow me to give you the priestly blessing as I learned it with you in Carbondale, the blessing which we find at the end of the sixth chapter of the Book of Numbers, when Yahweh spoke to Moses and said,

Speak to Aaron and his sons and say: “This is how you must bless the children of Israel. You will say, 'YIVOROCHECHO ADONOI VEYISHMERECHO, YOER ADONOI PONO V ELECHO VIHUNECHO, YISO ADONOI PONO V ELECHO, VEYOSEM LECHO SHALOM!' [May the Lord bless you and keep you; may the Lord let his face shine on you and be gracious to you; may the Lord show you his face and bring you peace!] 'OMAYN!' [Amen!]"

Love you, Burt!

*Fr. Larry N. Lorenzoni, S.D.B.*

Salesian Provincial Office  
San Francisco, CA



This letter was published April 5, 2005 in the *New York Times*:

*To the Editor:*

*In 1987, when I was presented to Pope John Paul II as the new information and press office director of Caritas Internationalis, the social service arm of the Catholic Church, I turned to the Holy Father and said, "I am a Salesian of Don Bosco, Your Holiness, and after nearly 50 years in the United States, I have now been condemned to the Vatican."*

*"Me, too," the pope replied with an incredible smile, caught forever in my favorite photo with him. (Rev.) Larry N. Lorenzoni*

*San Francisco, April 4, 2005*

## *Enthusiastic*

Dear Burt,

Congratulations on your retirement.

The following is my first memory of working with you.

As I was finishing a degree at the University of Michigan and looking for a teaching position, you were looking to hire teachers for the mathematics department at Nova. My advisor, Charles Brumfiel, referred me to you or else you to me. As I recall, you came to Ann Arbor to interview me and another person, so we first met there. My memory of the interview is that I mostly listened to your enthusiastic description of Nova, the mathematics program you were putting in place there, and the students at the school. After the interview, I worried that you had learned nothing about me as a teacher candidate. Still, I was offered a job and I accepted with an eleven-month contract starting in July 1966.

Shortly before I was to leave Ann Arbor and travel to South Florida, you left Nova and moved to Southern Illinois where you and Joe Karmos worked on getting funding for what would become the Comprehensive School Mathematics Program (CSMP). I believe you informed me in June of your decision to leave Nova, saying that you would understand and help me if I decided not to honor the contract at Nova.

Of course, I did go to Nova for just one year. There, my teaching assignment included working with “Burt’s students,” those who were ready to take an abstract algebra class (with your chosen text by Herstein) *and* an analysis or calculus class using a new and sophisticated book by Spivak. The students expected classes with books chosen by Mr. Kaufman and taught by a Mr. Kaufman-like

teacher.

We communicated regularly during that year about how the students were doing, about how the texts worked with these students, and how I was doing. This was the start of my career as a mathematics educator and led to a long-term relationship through about 30 years with CSMP.

With best wishes,

*Clare Heidema*

## *Completely Immersed*

One of my fondest memories of Carbondale in the mid-1970's was watching Burt Kaufman teach his EM classes. I can recall sitting in the back of a sultry classroom on the second floor of the cinder block building CSMP used for offices. A bunch of mop-headed adolescents melted into the room. They took their seats and Burt's magic began.

Chalk in hand, Burt paced, asked questions, wrote equations on the blackboard in his neat, careful script. He listened to students' explanations, challenged answers, and posed harder questions. Students and instructor were completely immersed in their own badminton game. Questions followed answers in a furious volley. It was difficult to discern who was having more fun, the server-instructor or the player-students.

More questions, more answers. Then a really difficult problem. Complete silence as bodies quieted and brains clicked into high gear. A student whispered a tentative solution. "If her theory is correct," Burt asked, "then what follows?" More murmurs, then voices grew louder as excitement intensified. A step on the way to a solution of a thorny problem or a blind alley? Only the instructor knew for sure, and he was not telling.

A collective sigh. Time for the class to end; wait till next time. But this day who won the game — the students, the observers, the instructor? That answer is easy: everyone.

With best wishes to Burt and his family,

*Phyllis Klein*

Cape Elizabeth, ME

## *Seriousness and Single-mindedness*

I have fond memories of my short two and a half years with CSMP in Carbondale, and remember being impressed from the very start with Burt's dedication, dynamism, and knowledge and appreciation for real mathematics. In fact, one amusing anecdote reminds me of his seriousness and single-mindedness. One day after I had joined CSMP I encountered Burt in the long hallway in the new building, and both of his arms were loaded with curriculum materials. I impulsively said, "Got a match?" Burt started to balance all the booklets with one arm in order to reach into his pocket with the other. I quickly said, "Just joking", and vowed to remember in the future that

- a) this guy means business, and
- b) he's my boss!

More seriously, since CEMREL days I've moved away from pre-college mathematics education and back into teaching university mathematics, with the exception of a program that I co-direct, the Bay Area Mathematical Adventures (see <http://www.mathematicaladventures.org/>), that I think Burt would very much appreciate. However, I do see the growing national problem in mathematics education at all levels of an overemphasis on skills and training, including the use of technology, at the expense of genuine mathematical thinking, problem solving, and education. (The TIMSS and Liping Ma's work seems to have mostly fallen on deaf ears.) I vividly recall Burt's and others' pioneering leadership in the early 70s against attempts to reduce all learning to simplistic, easy-to-measure behavioral objects that we called B.O. Somewhere buried away I have a copy of that special issue of *Educational Technology* that Burt co-edited, at the same time that he was managing a major

curriculum project.

So I salute Burt and his well-deserved retirement — he won't even have to move to Florida for it! — and for his lifetime of fighting the good fight.

*Peter Ross*

Ph.D., Science & Mathematics Education

University of California, Berkeley, 1980

Senior Lecturer in Mathematics & Computer Science

Santa Clara University, Santa Clara, CA

# *Mr. Mathematician*

## **A Smidgen of History**

Dear Burt,

Can you believe it? It's been nearly 40 years since you started CEMREL's CSMP Program at the University of Illinois at Carbondale!

What exciting and valuable learning came out of that program, both for the regular classroom students and gifted high school students.

I remember that those high school Elements of Mathematics students tested out of the freshman math classes at places like MIT and Harvard. What a tribute to the developer!

And then there were the International Conferences on Mathematics, the first on the Teaching of Probability and Statistics in 1969 held at Carbondale. Eminent mathematicians from all over the world attended and participated. One of the highlights was a special evening with R. Buckminster Fuller, designer of the geodesic dome. A second International Conference on the Teaching of Geometry occurred in 1970 and a third on the Teaching of Algebra also in 1970.

Your math program was selected by the U. S. Office of Education for a permanent traveling exhibit to go to schools all over the United States.

Publishers began to visit in 1970, and you eventually selected Harper & Row to produce your materials for school districts across the nation.

Ah, the Minicomputer! Kids loved it! Mme. Papy made it fun for them.

In 1972, CEMREL, Inc. received a building grant from the Feds for restoring two old hospital buildings on 59th Street in the city. We moved to our new home in 1973.

Halcyon days!

Then you brought your staff and your lovely family to St. Louis and settled down in our beautifully restored buildings on 59th Street.

You were “off to the races” as more and more schools began using your wonderful materials.

And then came the Fall of 1982 and the fall of CEMREL, Inc. And you were off to Florida. The rest is history.

As an old retired public information officer for CEMREL, Inc. and now volunteering much of my time to The OASIS Institute (a program for mature adults started under the aegis of CEMREL), I wish you happy and fulfilled in your retirement.

All the best to you and your family,

*Verna Green Smith, Ph.D.*

Former Public Information Officer  
CEMREL, Inc.

## *Intellectual Strength and Drive*

Looking back on my experience with CSMP after more than 30 years, I am still full of admiration for the intellectual strengths and drive that Burt brought to the project. I didn't always agree with all of his decisions, but in retrospect I'm not sure that any other direction would have been more effective or successful. Certainly the array of forces against the basic approaches that he was championing was formidable — and that's equally true today.

When I got to NIE I was struck by the apparent disregard that the agency had for any of the arguments, briefs, testimonials, or evidence that CSMP had sent in reaction or rebuttal to the “Panel D” decisions. It wasn't simply that it all was ignored; there just wasn't any sort of mechanism for considering it. Judy Cherrington, who was the project officer in charge, is a very smart and competent person, but she had dozens of panels to deal with and simply could not pay much attention to some math project that had a beef with the final decisions. Similarly, Emerson Elliott, who was acting director of NIE, and equally smart and competent, was trying to run a \$100 million agency, and as far as I could tell virtually none of the Panel D brouhaha ever reached him anyway.

If it's any consolation to the CSMP folks, it took me 18 months as the head of the math effort within NIE to close down an RBS project called “Individualized Middle Mathematics” — which was much worse than Wisconsin's DMP (famously the source of “Which is true of some, but not all, empty sets?”). The Lab and Center operation in Washington fought hard to preserve IMM, even though it was truly awful. The lesson is that it is incredibly hard to move any large bureaucracy, and even harder, in this country at least, to make any lasting and significant improvement

in mathematics education.

I certainly wish Burt all the best luck in retirement. I'll always remember that getting an occasional "OK BK" on a draft of some paper was the highlight of the day!

*Ed Esty*

Ed.D., Mathematics & Mathematics Education, Harvard, 1970  
Independent Consultant in Mathematics Education since leaving  
the US Department of Education in 1986

## *A Career That Has Made A Difference*

Dear Burt,

Congratulations on your retirement. It's been said that a teacher never knows the scope of his influence. That has to be even more true of you than of almost any other teacher I can think of. Not only have you influenced those who worked with you and those whom you directly taught. The materials developed under your leadership have served to influence positively what is now generations of school children.

The mathematically talented students have certainly gone further in mathematics than they otherwise would. Many of them would have been sufficiently bored by the normal high school fare as to have lost interest in the field. Even those who would have stuck with it have been able to progress at a far faster rate and enter college with an extremely strong background.

Perhaps even more important is your effect on elementary school children. A very significant number of former CSMP students are now in their adult lives with an attitude toward mathematics far different from most of their peers. Understanding mathematics as a form of inquiry, rather than a learned set of rules, has to have had a positive effect on the students' abilities to think about any field of study. As a matter of personal observation, I believe that exposing my daughter to CSMP materials very early in her life strongly contributed to her understanding and appreciation of mathematics, important assets as she pursues graduate degrees in economics.

Best wishes and, again, congratulations on a career that has made a real difference to the lives of a very great number of people.

*Kevin W. Saunders*

Ph.D, Philosophy, University of Miami, 1978

J.D., University of Michigan, 1984

Professor of Law and Senior Associate Dean for Academic Affairs

Michigan State University College of Law, East Lansing, MI

## *The Finest Experience*

In late 1975 Burt Kaufman interviewed me for a position as Frédérique Papy's assistant at CEMREL. Subsequently, I was hired and began my work there in January, 1976. I remained there until June, 1979. My experience with the Papys, the CEMREL staff, as well as with the children we mentored was the finest of my professional life. I shall always be most grateful.

If Burt or any of you remember Butch Ramsey, one of the children to whom Frédérique gave additional math play therapy time, you will be interested in this news.

Butch is now a father of three, with a responsible job. To quote him, "I understand math now, and can use it, thanks to CEMREL." I recall that Butch was quite the mischief-maker, so I find this very heartwarming and believe you will too.

Warmly,

*Cille Smith*

Springfield, MO

## *A Major Impact on Many People*

Every CSMP teacher's guide starts with an “Open Letter to the Teacher”. This is an

### **Open Letter to the Boss!**

Dear Burt,

You had been director of the Comprehensive School Mathematics Program (CSMP) for about two years when, in August 1969, at the first International Conference for Mathematics Education in Lyon (France) you met Frédérique, a Belgian math educator who gave a lecture on a strange multicolored abacus and its impact on number consciousness in elementary school children.

Between you and Frédérique's approach to math education it was what we call in French “un coup de foudre”. Literally that means that you were struck by lightning, but it is also the French expression for “love at first sight”. As a result, soon after your first encounter in France, you invited Frédérique to Carbondale for several short term stays, and in May 1974 you hired her full time. That decision of yours was not only immediately beneficial for CSMP, but it turned out to have a much greater impact. Once in Carbondale, Frédérique's creativity literally exploded. During the week, she would write and try out lessons, as we all did, but with a much richer environment and technical support than in the Centre Belge de Pédagogie de la Mathématique. But during weekends, since she was not at all keen on social gatherings, she had plenty of time for herself. And surely enough, nearly each Monday, she would appear at the office with the draft of one of her wonderful “Stories by Frédérique”. In these stories she invites the child to enter a world where numbers live, act, have emotions, a world where a child can become the friend of a number. She

told me once, “During weekends, I can think, I can create, I am alone and peaceful ... it is like being in a mathematical nunnery!”

I have often wondered: Would the “stories” have existed if you had not succeeded in persuading Frédérique to come and live in the States? I do not think so. I truly think you are the one who made way for Frédérique's stories.

Frédérique is not among us any more to contribute to this publication. That's why I chose to evoke her. And also because I knew her well. But there are so many talented people you brought together, and to CSMP: Peter Hilton, Vince Haag, Georges Papy, Lennart Råde, ... and so many others.

\*

\*

\*

In 1974, I was one of Frédérique's assistants in Belgium. She suggested I come to Carbondale, on a scholarship, for two months ... I stayed for two years, as a staff member of CSMP!

I was 26 ... and not at all opposed to social gatherings! During the week I worked hard, but the job was interesting, varied and pleasant. But during weekends and vacations, I had time to explore! I explored the country, I met people and I made friends: relationships that are still alive after 30 years. And those experiences really changed my way of viewing life: life in the States, in the mid seventies, was indeed different enough from what I had known in Belgium to help me become aware of the relativity of certain life options, but it was still close enough to my own way of life to be easily assimilated ...

When I returned to Belgium, I felt I had access to two cultural backgrounds: the Belgian one, and the one my CSMP friends shared with me. I do not say “the American way of life”, because, as my friend Betty often told me: “remember, we (at CSMP) are not typical (of the American way of life)”. Maybe I should call that second background “the CSMP one”?

Believe it or not, Burt, the people I met thanks to you and CSMP drastically changed my view upon life.

I am now teaching in a teacher training college, and believe me, Burt, more and more teachers and children in our neighborhood know about the string game, the Minicomputer and the detective stories.

You had a major impact on Frédérique's life, Burt. You had a major impact on my life. With CSMP and IMACS you have had a major impact on many people's lives.

For all that,

Thank you Burt!

*Christiane Vandeputte*

Mons, Belgium

*the girl next to Mickey Mouse in the picture below!!!*



*PS. There is no girl next to Mickey Mouse. [It's an inside joke.]*

## *Beautiful Handwriting*

I worked for Burt as his secretary for several years at CEMREL in St. Louis. We all know Burt is truly an amazing person. He is thorough and organized to a fault ... and he has *beautiful* handwriting, which made my secretarial duties much easier.

Burt was both fun and challenging to work for. He put everything into the math program and he absolutely loved teaching the kids. He seemed most lively in the classroom and it was a joy to pass through the classes he taught at CEMREL and just watch him for a few minutes. The problems he worked on with his gifted students were so far beyond my comprehension, I didn't even try to understand. But I could tell he loved what he was doing and all the students were hanging on his every word.

He issued report cards to the students and parents regularly and I typed them for distribution. I *loved* reading the comments about his students. He was almost always positive, but in the few instances when he had to be somewhat negative he did so in a tactful way.

Burt wrote absolutely beautiful letters to his colleagues, too. They were *always* long and interesting and I never failed to learn something from or about Burt from typing these letters.

My least favorite time of the work week, however, was Friday afternoon. Normally everyone kind of wants to kick back on a Friday afternoon and get ready for the weekend. *Not so* with Burt! This was the time Burt usually chose to catch up on shorter, miscellaneous correspondence (not the beautiful long letters referred to above). *And* he always wanted *one* or maybe even *two* of *every* math book that was in stock wrapped and shipped out to various individuals on Friday afternoon! This got to be really

funny and after a time or two I knew what to expect so it was fine *and* it made Friday afternoons go by really quickly.

Burt, Pinky and I watched some of the same TV programs and always had fun discussing them. The main one I remember talking with them about was “Rich Man Poor Man.” If I had to miss an episode I knew I could get a synopsis from Burt or Pinky.

Burt is a big football fan, too. The year that Bill Bidwell, the owner of the then St. Louis Cardinals football team, moved the Cardinals to Arizona was indeed a sad day for St. Louis football fans. Pinky, not being a huge sports fan, left Burt a note on his desk that said, “Who is Bill Bidwell and why is everyone upset that he left town?” As I recall Burt just shook his head upon reading her note.

Burt always seemed appreciative of a job well done and he let those who worked for him know that. You just wanted to do a good job for him, no matter what it was, because *he* worked so very hard and produced fabulous results.

Although it has been many years since I worked for Burt, I think back on those years with great affection. He is truly among the most intelligent, hardest working, and interesting people I know!

Burt, please know that everyone whose life you touched over the years thinks of you often and wishes you well! Thank you for being such a fantastic individual to have worked for *and* for remaining a special friend all these years.

With *love*,

*Sue M. Brinkman*

## *Many Have Gained Much*

Burt, you did a great thing for students when you set up the MEGSSS program. Many have gained much from this program and it continues to go on.

I remember my first day at MEGSSS at North Kirkwood Middle School where I learned about typits. I was supposed to stay only two weeks working on book revision but, believe it or not, I am still here. Of course, it is a long time since I have done any book revision and typits are a thing of the past. At first, I just typed and left a space for the artists at CEMREL to do the drawings. One day a drawing came back with a line one degree off and you asked me if I could fix it. Usually, each time, there was some little thing wrong, and it finally dawned on me that it was probably easier to draw the pictures than to correct them. I started with easy ones and built up to the more complicated ones with a lot of help from you. You made me so proud of myself when I did all of the drawings in one of the Geometry Chapters and also in everything else I did after that.

While I am recalling the past, I can't pass up this day. I don't remember exactly when it was but we were all in the office waiting for the students to arrive for class when the board members arrived. They announced that they were taking over the program, that you and all of the rest of the staff were fired immediately, and that they had hired new teachers to teach the students when they arrived. You were not going to let this happen so you went out to the parking lot and informed the parents when they arrived what had been done. You told them that if they wanted their students taught by unqualified teachers, they should send the students to class. Otherwise, they should take their students home. Only one student attended class that day. The

parents then got together with you and set up a general parents' meeting and the board was thrown out. I think this action saved the MEGSSS program.

Best wishes for a long and happy retirement.

*Dorothy Upchurch*

Project MEGSSS, St. Louis, MO

## *A Unique Man*

I worked for Burt Kaufman from December 1977 until April 1984, largely at CEMREL, as an Associate Director of the Math and Science Group. During those years, we completed the Final Edition of CSMP, started the Developer/Demonstrator Project within the National Diffusion Network, and founded Project MEGSSS, working with the *EM* curriculum. So, it was a very busy but rewarding time. Certainly it was the most satisfying job I ever held, and I am thankful to Burt for hiring me and providing such a wonderful opportunity for professional growth.

I have often reflected on the fact that, even though I saw Burt almost every business day for over six years, I never really understood how he managed to do all the things he did. To lead such a large development effort over a period of so many years, to bring in the huge budget necessary for its continuation, to secure and manage such a high quality staff, to survive a myriad of political intrigues, to meet all the publishing deadlines, and still emerge on top required a unique man. I'm sure that those within the mathematics and math education communities who could have succeeded at such an endeavor must constitute a very short list indeed.

I also recall that Burt somehow managed to stay in a pretty good humor and frame of mind, and keep on an even keel, even when times were not easy. It was a remarkable achievement and there are many monuments to his lifelong success. Burt has earned a long and happy retirement. Congratulations and best wishes.

*Ronald A. Ward*

Lecturer in Elementary Education  
Western Washington University, Bellingham, WA

# *An Inspiring Curriculum*

Burt,

Congratulations on your many years of service to the educational community as an instructor, innovator, and curriculum designer at the elementary, middle, and high school levels.

MEGSSS brought a unique, innovative, rigorous, and inspiring curriculum to The School Board of Broward County, Florida. It was a privilege and an honor to have been a small part of the MEGSSS team. Although, I thought you were a taskmaster at times, you elevated my limited knowledge of math to another level. To have seen the MEGSSS students grow in their approach to, involvement in, and appreciation of math, was way beyond anything I have encountered pre- or post-MEGSSS. I will always look back fondly on my MEGSSS years as the best teaching years of my career.

Thanks for giving me the opportunity and your guidance and support. May you have years of joy with your family and satisfaction in a career that has inspired so many students and teachers. You will probably never know the number of lives you have touched, but know that you've touched mine.

Best Wishes Always,

*Dennis Caruso*

Mathematics Teacher  
Falcon Cove Middle School, Weston, FL

# *An Inspiration to Students*

Dear Burt,

First of all, let me congratulate you on your well-deserved retirement. You have been an inspiration to your many students, as well as to me.

I was very lucky to be picked to teach MEGSSS first at Plantation Middle School and later at Nova Middle School. It was a lot of hard work, but also very rewarding. It was the best ten years of my teaching career, and for that I thank you.

You were always there to help us and guide us, and to make certain that we were teaching the material the way you wanted it taught. You could be hard on us, but you were always fair.

I thank you for ten wonderful years. You should know that you have touched the lives of your many students and colleagues, and you have definitely made a difference in my life.

I hope that you enjoy many years to come with your wonderful family, and that retirement is everything that you want it to be.

Many thanks.

Sincerely,

*Peg Carson*

Mathematics Teacher  
Stoneman Douglas High School, Parkland, FL

# *A Unique Boss*

## **An Appreciation Tribute**

Bosses come and go, but this one “Unique Boss” has a very special place in my heart and life.

It all began in the early 1980’s. A secretarial position became available with the Broward County Schools piloting a new Math Gifted Program called “MEGSSS” promoted by Burt Kaufman. This program was designed for exceptionally gifted fifth graders entering Middle and High Schools. This “one of a kind” Mathematics Gifted Teacher was the sole influence to many young boys and girls with his impressive talents of mathematics and computers. That is where I engaged in these memorable happenings.

I was given the opportunity by Burt of enhancing my business career as a graduate of St. Helen’s Business High School, Bronx, N. Y., when he hired me as Clerical Specialist IV. But only hands-on experience can be your best teacher. As I have always relayed to Burt, I will always be grateful to him for “making a full secretary of me”. Today, as I celebrate my thirty-first year working with the Broward School System, I owe a major part to Burt.

Let me begin by mentioning the many late nights and the Saturday Testing Burt would work during the process of selecting our new incoming MEGSSS qualified students and sending out their acceptance letter to the program. Then there were Open House Nights for parents and students at Driftwood Middle and Plantation Middle and High Schools, and developing our own MEGSSS Quarterly Report Card. I could not understand how I wasn't fired when I took three hours driving to Pompano to

deliver something for Burt. Burt said, "I'll have you drive the expressway for the first time now." Burt, I still do not. I use my University Drive and back streets. Ha! And I'll never forget the good times we would have celebrating Burt's birthdays, the gifts and flowers you sent me, our dinner parties and MEGSSS family picnics at C.B. Smith Park. All these special moments will forever be embedded in my book of fond memoirs.

As you retire, dear Burt, I wish you much health, happiness and most of all prosperity in your new endeavors that life will bestow upon you.

## *Uylna Quadrino*

*P.S. I still have your yellow MEGSSS Booklet introducing your program and a sample report card. Richard also wishes you the best on your full retirement. He too starts his on February 28, 2007. My love to your lovely wife, Pinky.*

## *We Are All Better Off*

Dear Burt,

I guess the best way to start this letter is to say Thank You! You have done so much for my career, by allowing me to be exposed to your curriculum and teaching style. I have had the pleasure of watching you teach and being an actual student in your class, a Scheme class, one summer. (I have actually been applying much of what I learned that summer about conditional arguments in helping to develop online dynamic geometry/algebra worksheets.) All that experience along with teaching the curriculum you helped to create has helped make me a better teacher.

I have taken that knowledge and applied it to my teaching in the Broward County Public School system; you can be assured that your influence has touched every student and teacher I have attempted to educate, and we are all better off for it. I hope that, in your retirement, you find a way not to work so much☺.

Best wishes to you and all your family; don't forget to come by and visit us at IMACS once in a while.

Yours truly,

*Guy Barmoha*

Pioneer Middle School, Cooper City, FL  
Broward County Middle School Teacher of the Year, 2004  
IMACS Teacher

## *A Gentleman and a Scholar*

When I first started work at IMACS, one of the first things everyone told me was “to not get upset if Burt seemed angry with me or spoke angrily to me. That was just the way Burt was and not to take it personally. He's like that with everyone.” I can honestly say that in the almost 7 years of my tenure with IMACS, Burt never once spoke to me in anger. When I think of Burt, the saying “He's a gentleman and a scholar” comes to mind. Ever the consummate professional, he is definitely “one of a kind.”

*Sheila Jones*



Parents



## *Lifetime Dedication*

We remember Burt fondly; he was very important in our daughters' formative years. He devoted a great deal of time to them during a tutorial that lasted several years. Because of the credits earned in the course of those years, as well as the discipline they developed, they were able to graduate from Brown University in three years. Subsequently, Sarah earned a Ph.D. in Psychology from Stanford and Brenda an M.D. from Emory University and became a Psychiatrist. Although neither of them ended up in the mathematical field, the logic and reasoning ability they developed in their time with Burt was very instrumental in their academic success as well as their professional careers.

Mary and I send our very best wishes to Burt. His lifetime dedication and contribution to his students and his field are remarkable.

Sincerely,

*Marlowe Erickson*

St. Louis, MO

## *Devotion to his Students*

Once upon a time — now, don't laugh — all good stories start like that no matter what writing teachers advise. Once upon a time, my husband and I had a little boy who was a ray of sunshine in our life. He was so good and so happy and a real sponge when it came to learning anything that interested him. The problem was that he learned things much faster than the bureaucracy that is our public school system preferred.

By the time he was four, he taught himself the multiplication tables through 13, had been reading everything in sight since age 2 ½ and his favorite toy was his calculator. I had a close friend who taught gifted students in the junior/senior high school of another district. She gave Eric a lot of math workbooks and he loved them as much as his calculator.

The real problems began when he entered kindergarten with a 6<sup>th</sup> grade math level. The district didn't know what to do with him nor would they let him go. We contacted Johns Hopkins because we knew they had a program for gifted 7<sup>th</sup> graders. They wrote Eric a letter telling him he had to decide whether he wanted to study algebra or geometry. We thought that was a really dumb question to ask a child his age.

Finally, somehow, I learned there was a program in St. Louis and that a man named Burt Kaufman was running it. I wrote to him not expecting much and I got a 5-page letter in return.

Unbelievably, someone understood what we were saying and didn't think we were pushy parents who shut our son in a closet with a math book. His letter was wonderful and gave us hope for the first time. We learned all we could about the *Elements of Mathematics*. Math was actually being taught as it should be.

We did go to St. Louis with our children to meet Burt and Pinky and to see the program in action. We knew this was what should be happening all over this country but we also knew there were few teachers who could handle the upper-level courses.

Burt was wonderful with Eric and told us that he was a creative mathematician and we should never allow anyone to tell him how he *must* solve a problem because he had unique ways of problem solving.

We found a tutor for both Eric and his brother, Doug, who was 4 years older and also gifted in math but not to the same extent. The tutor had a master's in math from Hopkins and he had to learn the material before he could teach them, but it was wonderful. Eric just loved it and thrived. He was not yet 10 when he earned his first college credits in Logic through Webster College. He and Doug continued with Logic and Sets, Introduction to Fields and other courses I no longer remember.

We had to hire a different tutor along the way and he was a math professor at Duquesne University. He was absolutely astounded at Eric's comprehension and told me he surpassed students in his college courses. He thought the program was wonderful for kids like Eric. Some of the courses he took were done through SUNY-Buffalo and he and Doug received credits from there.

We followed what was going on in Fort Lauderdale where Burt had moved the program and we wished our three could be there to participate. Burt's dedication to these students was 100% and the program was everything it should be. I have kept in touch with Burt and Pinky and have been amazed at what the graduates of the program have achieved.

This method of learning math should be taught all over our country. It is no wonder we fall so far behind other industrialized nations. I don't know what it will take for our nation to wake up.

I will always be grateful for all that Burt did for our children. They learned to think about math in a way that is not taught in

public schools. Many doors were open to them as a result of the courses they were able to take. By the time Eric finished high school, he had completed 8 college math courses at Carnegie Mellon University, all A's, of course.

When he was a junior, he attended the United States Mathematical Olympiad Training Session at West Point because he was ranked as one of the top 24 math students in the country. As a senior he was eligible for many honors but he was required to retake the SAT-M; they did not comprehend that a 12-year-old getting an 800 was quite different from a 17-year-old. He did repeat the 800 but we realized that we were dealing with yet another bureaucracy.

He chose to attend Princeton University and we found they were as rigid as the public schools. He switched to economics and was graduated Phi Beta Kappa from their Woodrow Wilson School but he never had his heart in what he was doing like he did when he was studying math.

He participated in a fast-paced math program at a local community college the summers after 5<sup>th</sup> and 6<sup>th</sup> grades and the head of the program told me that Eric had a unique method of solving problems, that he always put one problem on the weekly exam that he knew no one should be able to solve. No one told Eric that and he solved it. Again I heard the same words Burt had uttered several years before.

When he applied to grad schools, one of the Harvard/Princeton professors wrote the same words — that he was not only a unique problem solver but creative and you don't often get that in the same person. Burt recognized that all those years before when Eric was only 8 years old.

I am so appreciative of all Burt did for our children and I wish more students could benefit from his creativity and his fantastic ability to challenge and teach truly gifted math students. Our country loses much each time a child like this does not get the opportunity that Burt has provided there in Fort Lauderdale.

I cannot imagine Burt retiring but I am sure he will not be loafing. I hope this letter is one of many showing appreciation for his dedication and devotion to his students.

*Jeanette Lindblad*

Pittsburgh, PA

## *Treating Students with Respect*

Dear Burt,

This is a letter that is long overdue. This is a letter that will try and express Lawrence's and my gratitude for all the work you and your team have done with Scott.

It didn't take long for it to become evident that IMACS was an important part of Scott's life and it wasn't anything that we forced on him. He always had a mind of his own and all I had to do was find IMACS. It was you who kept his interest, challenged him academically and made learning fun.

Here are a few of the moments that I remember.

I remember when Scott was in third grade, at the age of 9, and I was on the school grounds at Riverside Elementary when I bumped into the music teacher. She informed me that Scott had made the final tryouts for "The Bells," only Scott had approached her and stated in no uncertain terms that he couldn't do this because the practice time conflicted with IMACS.

I remember being concerned that Scott's grammar would lack because all his time seemed to be focused on math. When I said this to you, you stood there and told me that Scott would learn more grammar from you than from some of his English teachers. I have learned that to be true.

I remember when Scott was very young how you asked him to grade papers and what an honor he felt that was.

I remember Scott telling me that there wasn't any class that he wouldn't take at IMACS from math, to computer science, to engineering to music. Scott would say that if IMACS offered it they would make sure they had the proper teachers to teach it.

I remember sitting in the Guidance office at Riverside Elementary along with Lawrence, the ESE specialist, the gifted teacher from Riverside Elementary, the guidance counselor from Ramblewood Middle School, someone from the Broward County School Board, Terry and you. And you asked for Scott to be exempt from math in the public school system and receive all his math from you. We went there expecting some sort of a fight but instead the representative from the Broward County School Board told the guidance counselor from Ramblewood Middle School, “I know these people (Burt and Terry) and I know that he (Scott) will get everything he needs in a math education from them.” She never questioned your program or your ethics.

I remember that, as Scott's math class started dwindling, how I had grown a little concerned. I approached you about it and you assured me that no matter where you were, even if it was only Scott, you would always have a spot for him.

I remember telling Scott that if he wanted to qualify for the scholarship program at NPBS he would have to skip eighth grade. Scott's only reaction and concern was that he had to have enough time to finish IMACS. This was extremely important to him.

I remember Scott telling me that when you would drive him from NBPS to Plantation you would tell him how and why you started the MEGSS program. He enjoyed that story.

No matter how many teachers Scott had at IMACS, and they were all good, the one constant teacher, the one teacher that always treated him with the same respect whether he was 10 years old or 16 years old was you.

We have a wonderful son whom we are extremely proud of and it is an honor to have had you influence him and be part of our lives. You invited us into your family, and not just your IMACS family, but we also got to know Pinky. Because of Lawrence's work, he didn't have time to take Scott to and from IMACS and so one day when this woman walked into his office and sat herself down in front of him with a big smile on her face and said, “Bet you don't

know who I am,” Lawrence could never have guessed. But when he came home and told me about Pinky, I just smiled. How nice of her to make the effort to seek him out. And then I remember when Scott came home from an IMACS holiday party and he told me about his surprise to see you dancing with Zack and Nick.

And so in addition to your teaching Scott, Lawrence and I want to thank you for inviting us into your family.

We sign this letter,

Proud Parents of an IMACS Alum

*Mimi & Lawrence Caplan*

Coral Springs, FL

## *A Challenging and Rewarding Experience*

Dear Burt,

Thank you for bringing us the eIMACS program. It has been a challenging and rewarding experience for our daughter Cari and we wanted to let you know how meaningful it has been in her development. We also want to thank you for personally being involved with her work. She appreciates the careful and well documented grading. Your helpful hints have assisted her in learning new concepts and in completing more difficult demonstrations. This assistance has been given while holding her to high standards that are the hallmark of excellence that we hope she will learn and aspire to attain.

When we began searching for a way to supplement Cari's math curriculum we wanted a program that did more than just accelerate the standard math courses. Other programs do not provide a rigorous foundation based on logic that is necessary to develop the abstract reasoning critical to understanding the foundations of mathematics. Once we saw the unique approach of your program it made more sense for her than any other we found. After Cari started, the program proved to be rigorous yet accessible and was organized in a step by step way to build sound logic skills.

Thank you as well for placing the IMACS program on the internet. Since we do not live in Florida, the only meaningful way Cari could engage the program was through the internet. We have some idea of the significant work required to bring these courses online and appreciate the great opportunity for many children outside of the region to access a challenging mathematics

program.

We wish you the best in retirement.

*Tom & Donna Crawford*

Parents of Cari, an eIMACS distance-learning student



*Students*



# Service and Dedication



HOUSE OF REPRESENTATIVES  
WASHINGTON, D. C. 20515

BENJAMIN L. CARDIN  
3RD DISTRICT, MARYLAND

November 15, 2006

Dear Mr. Kaufman, your family, friends and colleagues,

I thought you would enjoy these pictures from the 1961 *Green Bag*, the Baltimore City College yearbook.

City College was where I began to develop my leadership skills, and it was under the tutelage of Burt Kaufman.

As you gather this evening to honor his service and dedication to the lives of young people, please add my voice and praise.

Best wishes.

Sincerely,

A handwritten signature in black ink that reads "Benjamin L. Cardin". The signature is written in a cursive, flowing style.

Benjamin L. Cardin  
Member of Congress

CLASS OFFICERS. *Left to Right, Standing: Steve Caminis, President; Mr. Burt Kaufman, Adviser. Seated: Craig Singer, Treasurer; Stanley Fine, Sgt.-at-Arms; Ben Cardin, Vice-President; Edward Block, Executive Assistant; Steven Lockman, Secretary.*



Mr. Kaufman reviews the happy times he has had with his class.

## *The Support of Talent*

I first met Mr. Kaufman as my mathematics teacher at Nova High School in Davie, Florida during 9th, 10th and 11th grades (1963–1966) Mr. Kaufman was challenging and the first teacher I ever encountered that gave oral examinations and told us to help each other work on problems. The oral exams were really good practice for thinking on your feet and years later — when I was in Contracts I with a sadistic contracts professor who loved to make fools of freshmen in law school — I thought back to those math orals and figured that I did, indeed, live through those and I would live through Contracts too. Mr. Kaufman and his wife visited one of our Class of 1967 reunions and I got to tell his wife my law school story.

Fast forward: My eldest son, Ryan, was part of the MEGSSS (Mathematics Education for Gifted Secondary School Students) program for advanced mathematics students at Nova High School (yes, the same Nova I went to in the late 60's). When Broward County dropped the program in the early 90's, Ryan continued the program privately with Mr. Kaufman, Ed Martin, and Iain Ferguson under the management of Burt's son Terry at IMACS. Ryan was one of only two MEGSSS students that continued the mathematics program. Ryan also studied computer programming at IMACS and is now in a PhD program at MIT in Computer Science.

My younger son, Eric, studied computer programming for years at IMACS and started there in elementary school (as well as our daughter Colleen) with the Math Enrichment Program. So our participation in IMACS has been quite a family affair, all three of our children have been students. We had a child attending MEGSSS or IMACS for 13 years.

I have so appreciated the support of talent. There was no other place that Ryan could have pursued his mathematics instruction in high school. Both of my sons have enjoyed and reaped many benefits from the computer science instruction at IMACS.

The class of 1967 is having its 40th reunion in June of 2007, and I certainly hope Mr. and Mrs. Kaufman would honor us with an appearance. To close, I will share that Burt is famous in our house for saying “Eeeeh, you are wasting your parent's money” to a student who did not do his homework at IMACS.

Fondly,

*Paula Rhodes Newton*

Weston, FL

## *Sheer Happiness and Exhilaration*

Dear Mr. Kaufman,

Just as children always call their father “Dad”, you will always be “Mr. Kaufman” to me. You are my second father — which makes this hard to write.

You were a lawyer who became a mathematician and great professor. I am a mathematician who became a lawyer. You made me the lawyer I am because you taught me about logical thought, and law is centered on logic even more than artful words. It is the logic that wins the case or solves the problem, not the slick verbosity.

You taught me clean, artful thinking, and I have tried to take that into every part of my life.

You also challenged me, and got the best from me. The cocoon of your classroom, the sheer happiness and exhilaration I felt from your teaching me, have never been equaled in my life, but that is personal and selfish.

And you have never been selfish. You have also taught me about the greatness of changing the world. Your successful dedication to improving the world by improving education is a great accomplishment, even though it pales compared to my personal feelings for what you have given me.

You are the best, Mr. Kaufman.

Love from one of your first pupils,

*Lola Thomas*

## *Excited about Math*

I was a student in the CEMREL/CSMP program in Carbondale, Illinois, in the late 1960's and early 1970's, when I was in junior high and high school. The math classes I took were wonderful and by far the best part of my academic experience during that time. Learning abstract algebra, taking a calculus course based on Spivak's book; this was heady stuff, and remarkably engaging. None of it would have been possible without the leadership of Burt Kaufman.

Burt took a real interest in my mathematical education. He and the other CEMREL teachers and writers taught me abstract thinking skills that have been useful for decades. Because of Burt's influence I decided to major in mathematics in college, and I recall that he was kind enough to write glowing, and probably unmerited, letters of recommendation for me. I switched to the mathematically-intensive field of statistics in graduate school and have enjoyed a twenty-five year (so far) career as a professor. I owe so much of my professional happiness to Burt, because without him I probably would never have been excited about math in the first place. I would like to express my profound gratitude to him, and I wish him a wonderful retirement.

## *Adam Martinsek*

Ph.D., Statistics, Columbia University, 1981  
Professor of Statistics  
University of Illinois at Urbana-Champaign

## *A Force in the Classroom*

I had the good fortune to have the opportunity to study from the *Elements of Mathematics* series when I was in junior high and high school during the early 1970s. For someone with a strong interest in (maybe even a passion for) and some ability in math, this was an extraordinary opportunity that I was presented with — extraordinary because it was (and still is) the only program of its kind for secondary school students and because it was available in only one or a few select places in the United States.

Of course, this opportunity wouldn't have been available to me and to subsequent generations of students if not for the vision, foresight, and tenacity of Burt Kaufman, who guided the development of the *EM* curriculum.

But Burt's contributions weren't limited to curriculum development. He was also a force in the classroom, where he had a knack for making advanced mathematics understandable and interesting. Congratulations to Burt for such a meaningful career and my best wishes to him in retirement.

*Doug Hunt*

Ph.D., Electrical Engineering, Duke University, 1990  
Director, IMACS, St. Louis, MO

## *An Extraordinary Teacher*

I appreciate the opportunity to relay my gratitude to Burt. I am writing on behalf of my sister, Brenda, as well, as her husband has a very serious cancer diagnosis and she is unable to write a letter at this time. Brenda and I were two of Burt's first students. He taught, and then later tutored, us from 1976–1981 when we were in sixth through eleventh grades in University City, MO.

Initially we were in a public middle school, and the math program Burt developed and taught (called CEMREL in those days) was the first academic challenge my sister and I experienced. We consider it to be the foundation of our analytic abilities and, more broadly, our critical thinking skills. We credit this rigorous training with our admission to Brown University, whereupon we both earned bachelor's degrees in theoretical mathematics.

From there, Brenda earned an MD from Emory University and I earned a PhD in Counseling and Health Psychology from Stanford University. Again, the math training set us apart from other applicants and students at each level. For example, graduate level statistics, the most difficult subject for most incoming doctoral students, was relatively straightforward for me because of my math background.

Beyond the directly translatable skills, the math training Burt provided allowed us to trust ourselves to ask questions and to believe that our understanding of ideas was reasonable and worth communicating. For the rigorous and intensive training, and for furthering our academic interests and belief in ourselves as “bright women,” we are both grateful.

Above and beyond the exceptional content, we are grateful to Burt the teacher. Burt was an extraordinary teacher, a fact I didn't

fully realize until I was older. In fact, I don't think I fully appreciated how much effort and patience he put into our training until I became a teacher. As one indicator, the sheer amount of time Burt committed to us was extraordinary. There were countless hours Burt spent teaching just the two of us at the end of the school day in his CEMREL office, and summers the three of us spent poolside after working. At the time it seemed that the math training took a lot of our time. Now I can appreciate how much time and effort it required on Burt's part. Furthermore, Burt was always willing and able to address the countless questions we would raise. His teaching style was patient, kind, and thoroughly knowledgeable. As a teacher myself, I truly appreciate his dedication to our enrichment. Our math training with Burt was a formative experience, providing a foundation for our later forays into academia and clinical practice.

Brenda and I have both developed rewarding careers and family lives. Brenda became a psychiatrist, first in academia at UNM and UNReno, then in private practice in Durango, CO. She lives in Durango with her husband, Kiko, and two daughters: Sarah, age 8, and Sophia, age 6. I completed a child psychiatry postdoctoral fellowship at Stanford, and then continued on at the medical school. From there, I began a tenure track position in clinical child psychology at UNM, the hometown of my husband, Scott. I have been at UNM for seven years, with two leaves for two little girls: Katherine, age 5, and Olivia, age 2.

In sum, we credit our math background with much of our subsequent success. As my mother has noted (lamented), the math homework prevented us from learning how to cook during our middle and high school years, but I consider that a small price. My daughter recently commented that “girls can cook too!” What a far cry that is from my childhood when “girls can do math too” was in question. I'm hoping she'll start cooking for the family soon. In all seriousness, we are grateful to Burt for his dedication to training us and for believing we were worth the effort.

Sincerely,

*Sarah Erickson*

Ph.D., Psychology, Stanford University, 1994

Assistant Professor of Psychology

University of New Mexico, Albuquerque, NM

## *A Kind, Caring Man*

Mr. Kaufman was my only high school math teacher in St. Louis. I remember a kind, caring man, who made high-level mathematics easy and fun. I never remember feeling overwhelmed. When I did not quite understand, he would explain so that I did.

He was also my first employer. I, along with countless others, graded homework of younger students. When I started, he said to call him Burt, since we are co-workers (hardly). For me Mr. Kaufman is my best math teacher, and will always be Mr. Kaufman.

After one year of engineer school, I thought, “I always loved math, why not get a degree in that?” After earning a Masters in Mathematics and over 20 years of computer applications development, I look fondly back to my years spent learning from Mr. Kaufman.

Best wishes,

*Carol Dewar*

Ulster Park, NY

# *Insistence on the Highest Standards*

Dear Mr. Kaufman,

Congratulations on your impending retirement!

I cannot begin to tell you how much your tireless work on behalf of mathematics education for the gifted has meant, and continues to mean to me. Let's look at the timeline:

January, 1983:

I enter Project MEGSSS in the middle of the sixth grade, as part of the first class at Plantation Middle School. I still wonder, to this day, what possessed the School Board of Broward County to start up a new program in the middle of a school year, but I'm certainly glad they did so.

April, 1989:

I am admitted to Harvard University, largely due to the uniqueness of my high-school mathematics education as part of Project MEGSSS.

February, 1992:

I receive a job offer, which I accept, from a fellow Harvard alumnus (and a fellow mathematics concentrator) for a summer actuarial internship in New York.

June, 1993:

I start full-time at that same company, a mere four days after graduation.

January, 1999:

I follow that same Harvard alumnus, by now my mentor in the actuarial profession, to his new company, starting a new life in St. Louis.

September, 1999:

I meet my wife, a native of St. Louis, at a young-adults' event hosted by my synagogue.

August, 2001:

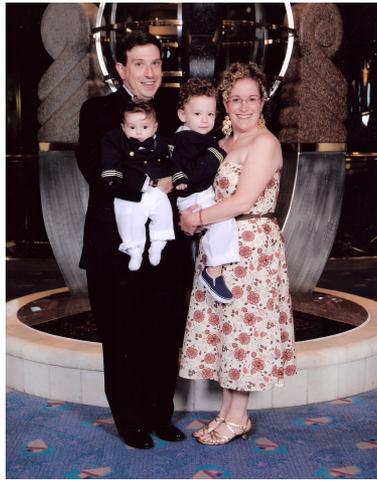
We are married.

January, 2004:

Our first son is born.

March, 2006:

Our second son is born.



So, you see, I can trace virtually my entire adult life — my beautiful wife and children, my satisfying and rewarding career, and my life in St. Louis — all back to my participation in Project MEGSSS. For this, I am eternally grateful.

But it goes well beyond that. Your insistence on the highest standards in all of my work; on rigorous and precise logical thinking; and on the importance of time management — all of these have helped me tremendously throughout my personal and professional lives.

From the bottom of my heart, please accept my thanks for your years of hard work, and my best wishes for a long, healthy, and enjoyable retirement, which you very much deserve.

Sincerely,

*Larry Carson*

Vice President and Actuary  
RGA Reinsurance Company  
Financial Markets Division  
Chesterfield, MO

## *Perseverance*

If I had to pick a single influence from my life that most shaped my intellectual and professional development, it would undoubtedly be MEGSSS. Nothing else came close to increasing my skills to problem-solve or to break down issues to their core components for understanding or diagnosis. And from these skills came a natural self-confidence. (If I can graduate MEGSSS, I can do anything!) And from the experience, doors blew open in college — advanced math and theoretical computer science courses, as well as mathematics internships were within reach. And those, in turn, prepared me for success in professional life. If that weren't enough, the friendships I made during my MEGSSS years remain my strongest and deepest, some 17 years later.

MEGSSS truly enhanced my life. And with county funding constantly in doubt, with political battles required of Mr. Kaufman and the rest, it is an even greater testament to his perseverance that I was able to benefit from the experience.

So for all this I say, thank you, Mr. Kaufman! (Or can I call you Burt now?) Multiply my experience by the hundreds of lives you've touched, and you find quite a legacy in the making — something most people can only dream of.

*David Broman*

Software Developer  
Microsoft Corporation

## *Instruction in Logic*

Dear Mr. Kaufman,

I'm writing because I heard of your impending retirement from Ed Martin, and wanted to wish you well and express my gratitude to you for the excellent educational basis you provided us. I enjoyed my time in the MEGSSS program very much, and can't begin to express how beneficial participation in the program has been over the years. I currently work as a senior Software Engineer at RadiSys Corporation, a telecom corporation in Boca Raton, and am often called upon to quickly learn new programming techniques and assist in debugging efforts with junior programmers. The instruction in logic you provided us in school has helped me to perform both tasks well, even to the point of being able to spot complicated bugs through a code review. I can safely say that I would not be nearly as successful in my profession if I hadn't had the benefit of your classes.

Thank you again for everything over the years, and best of luck to you in your retirement.

Sincerely,

*Adam Sternberg*

Senior Software Engineer  
RadiSys Corporation

## *A Remarkable Accomplishment*

Dear Mr. Kaufman,

First of all, congratulations on your retirement!

It's hard for me to believe, but it was twenty-four years ago when my mother and I came and sat in on one of your MEGSSS classes before making the final decision about whether I would join the program. You were discussing propositional calculus that day, and I remember it very well; I can close my eyes and be in that room again.

I remember the feeling of seeing all this *stuff* and having no idea what it was all about — but knowing for sure that I wanted to come learn about it. Now I open my eyes and I'm sitting in my office at the University of Oregon. During the short time I've been writing this letter two students have come by to interrupt me: one asking me to explain more about the Betti numbers of topological spaces, and one asking if she can do a reading course with me next term on the fundamental group. It's strange having these two moments in time come together, but it's a pleasure to think back on the beginning of a long journey — and to see how easy it was to take those first few steps.

I certainly knew that MEGSSS was a great program while I was in it. But it's only much later in life that I've realized just how amazing and rare it really was. I've seen math education at the undergraduate level at the University of Michigan, at Purdue, and here at the University of Oregon — and the MEGSSS courses in linear algebra, groups and rings, and real analysis are better by far than the courses we offer our undergraduates at these universities. The reason will probably not be a surprise to you: most students never learn how to prove things that well, and in our courses we're

always scrambling to deal with this deficiency. How I wish I could train them from the very beginning, the way MEGSSS trained me. The *EM* curriculum is a remarkable accomplishment, and I now know how lucky I was to learn from it.

I'd like to relate two small incidents in which MEGSSS resurfaced in my life after high school. In the fall of 1998 I was teaching my first class ever, as a graduate student at MIT. I was a TA for the multivariable calculus course MIT offers its freshman. There was one girl in the class who did particularly well on the exams, much better than the other students. In this way she caught my attention, even though she was very quiet in class and hardly ever interacted with me. After the final exam she stopped by my office for some reason I no longer remember, and in the course of chatting with her she asked me if I was going anywhere for the winter break. I told her I was going home to Florida, and she said, "Oh! I'm from Florida, too!" She asked me what city I was from, and I answered "Hollywood", thinking she might not have heard of it. Then she got a funny look on her face and said, "*I'm* from Hollywood, too! Where did you go to high school?" I told her "Nova", feeling a little funny myself, and of course it turned out that she went to Nova, too. "Were you in MEGSSS?" I asked her. Of course you know what the answer was! "Ah," I said, after finding out. "That explains why you've been doing so well!"

The second incident involves a colleague of mine, Brooke Shipley. We overlapped for a year in graduate school, and then afterwards I was a postdoc at Purdue while she was an assistant professor there. We got along very well, and have ended up writing several papers together. After we'd known each other for a few years, there was one point where we were both in a conversation with a visitor; somehow it came out that Brooke had been part of a special program in Lincoln, Nebraska where they taught rigorous mathematics to middle school students. I gave her a funny look and said, "You know, *I* was also in a special program like that, down in South Florida." She said, "Really? Did they use green and white books?" "Yes!" Her response was

almost the same as mine: “Ah, no wonder we get along so well!” [The connection, incidentally, was that Brooke's teacher had been introduced to the *EM* books at a workshop in St. Louis, and somehow had gotten hold of them and brought them back to Lincoln. I can imagine that you know of many other such stories.]

MEGSSS has made an enormous difference in my life, and I simply cannot measure it. Given how many other people there must be who can also say this, I hope it feels to you that you can rest well in your retirement. I am very grateful for your efforts.

Sincerely,

*Daniel Dugger*

Ph.D., Mathematics, Massachusetts Institute of Technology, 1999  
Assistant Professor of Mathematics  
University of Oregon, Eugene, OR

*Editor's note: Dan appended to his letter an extensive postscript describing his current research. He finished with this glorious paragraph, which confirms that Burt's spirit is already infusing the next generation:*

Math is beautiful when things fit together and seem natural, and when you can explain it to another person and have them “get it”. For me, my research always starts with something that I want to understand. The goal is not to solve a problem, but rather to find the hidden beauty in things; to understand why things work, and to share this with other people. My experience has been that even when a problem has been technically-speaking “solved”, there is often still room for a better understanding. While I have been lucky that parts of my work have involved solving open problems, much more of it has been concerned precisely with developing a better understanding of something — and the pursuit of some hidden beauty. It is this latter aspect of which I'm proudest.

## *Wonderful Preparation*

Mr. Kaufman,

I am so grateful that MEGSSS existed when I was a teenager. After many years of boredom in elementary school, I finally felt challenged when I entered MEGSSS. Even as I look back at my undergraduate and graduate years at Berkeley in mechanical engineering, I still consider MEGSSS to be the most challenging curriculum I was in. It was also wonderful preparation for my future schooling. Not only was I more advanced mathematically than most of my peers, but being in the program helped me think logically, approach problems in a systematic way, and not procrastinate (there was definitely never any time to fall behind!). As a practicing engineer, these skills have come in very handy.

I know that MEGSSS was a product of your vision and willingness to take a risk on behalf of students like me. It would never have been around without your tireless efforts, for I remember the many battles with the School Board year after year. I thank you for your dedication. Your life's work is very much appreciated by me and my classmates. I wish you a very happy retirement.

*Tuni Kundu*

Ph.D., Mechanical Engineering,  
University of California, Berkeley, 2001  
Mechanical Analysis Support Team, Fluor, Inc.

## *Determination and Passion*

It's been quite some time now since I was in middle and high school back in the late 80's. Looking back, I guess I had always enjoyed playing around with numbers and geometric figures and such, and I had always had encouragement from my parents and teachers. So I was extremely fortunate for that. But my biggest piece of luck was having the opportunity to take part in MEGSSS.

I've got three little boys of my own now, so I'm becoming more aware of what is (and what isn't) out there in the schools. MEGSSS was just incredible. It got me together with other kids who also really liked math and were good at it, which was a lot of fun. It introduced me to really interesting and beautiful mathematics. It gave me some of the best teachers I ever had. And for all of that, I just can't thank Burt Kaufman enough.

I really don't know how he managed to do it. The mind boggles at all the hurdles that had to be overcome: he had to convince the school board to bus kids from all over the county (I sure don't miss the bus rides!); he managed to find wonderful teachers for us; he got enough students to come. It truly is a testament to his determination and passion.

As a direct result of his work, I got an absolutely amazing educational experience, and I will always appreciate everything he did for us. He opened the door to the wide world of mathematics to me, and let me out into it. I'm still wandering around in it today. Many, many thanks.

*Brian Ewald*

Ph.D., Mathematics, Indiana University, Bloomington, 2002  
Assistant Professor of Mathematics,  
Florida State University, Tallahassee, FL

## *Teaching the Future*

Dear Burt (“Mr. Kaufman” sounds more natural, though),

Hello from Durham, North Carolina! It is amazing to think that it has been more than 16 years since graduating from Plantation High School and the MEGSSS program. More than 23 years ago, I remember joining a group of talented (and young!) students to start a seven-year adventure in math developed by you. There were times of struggle and times of exhilaration grappling with the concepts and problems in your unique set of math books. My wife has no comprehension as to why I feel the need to hang on to the complete set with all my scribbles and notes, but it means so much to me. The MEGSSS program introduced me to math systems and learning styles that have helped me throughout my life.

After completing the MEGSSS program in 1990, I earned a degree in civil and environmental engineering from Duke University, and then a Masters degree in environmental engineering while working for an international engineering consulting company. I obtained my Professional Engineering license in 1999 and have been involved in water system planning, hydraulic modeling, and design for 12 years now. Although I am luckily able to stay clear of calculus these days, the logical math processes and theories learned through MEGSSS have always stayed with me.

Upon your retirement, I'd like to send my best wishes and appreciation to you for a career spent in the pursuit of knowledge and teaching the future of this world.

Sincerely,

*Chris Wilson*

M.S., Environmental Engineering

Florida International University, Miami, 2000

Principal Engineer, Brown and Caldwell

## *A Very Dry Sense of Humor*

Mr. Kaufman was my teacher during the most awkward period of my life: 7<sup>th</sup> grade. Without a doubt, he was not only one of the most brilliant men I've ever met, but he also had an incredible way around young people. He basically treated us, well, like adults. I had never experienced that before. He afforded us the leeway to explore and challenge, while simultaneously setting exceptionally high demands for performance. He also had a very dry sense of humor, which, beyond abstract algebra and propositional calculus, remains one of more valuable gifts he has given to me.

*Richard Yudhishtu*

BS, Industrial Engineering, University of Florida  
MBA, Carlson School of Management, University of Minnesota  
Manager, Product Strategy, UnitedHealthcare

*PS. I was also a high school math teacher for 2 years as part of the Teach For America program — an endeavor which I pursued largely because of my participation in the MEGSSS program.*

## *Monumental Efforts*

It's difficult to enumerate all the ways in which Burt Kaufman has influenced my life, but I can certainly give it a try. In the classroom, I'll always remember Mr. Kaufman as a teacher who doesn't give up on his students, and as a teacher who firmly believes in what he teaches. Out of the classroom, his efforts in shaping the EM curriculum were nothing short of monumental. An immediate consequence of these is that I am able to pursue a doctorate in mathematics, and in my corporate work, I've been known by my teammates as a reliable, “go-to” guy in getting applications developed, tested, and delivered.

Burt's example has also led me to consider teaching as a career. Teaching at IMACS has been a very rewarding experience, for it gives me the chance to interact with talented, motivated children of all ages. Seeing how my education has helped me accomplish my goals gives me a perspective that I use to motivate my own students. It comes as no surprise, then, that I firmly believe in the material that I teach, perhaps in the same way that Burt does.

In short, Burt Kaufman's influence will be with me for the rest of my life, and it is exceedingly doubtful that I would ever have developed the same love of mathematics and computer science without it. The importance of this gift cannot be overestimated, and it is something for which I am truly and eternally grateful.

## *Ken Matheis*

B.A., Mathematics, Rice University, 1998

B.S., Electrical & Computer Engineering, Rice University, 1998

M.S., Mathematics, Florida Atlantic University, 2005

Currently pursuing a Ph.D. in Mathematics at FAU & teaching IMACS

## *Teaching Foundational Principles*

Dear Burt Kaufman,

I have never been good at what most people consider to be “math:” adding, subtracting, etc. I disliked math in elementary school, and I remember always being the last student to finish my long division problems. I took the MEGSSS entrance exam just because I could, and then I went to summer school out of curiosity. I discovered “math without numbers,” and began to learn *why* math was true, and **you** helped me appreciate the “real” math (although my accountant husband would call it “fake” math.)

My family moved after my freshman year of high school, and I was one of the first students to take MEGSSS courses by correspondence for a year. When I went to college, I swore I would *never* major in math, and signed up for biology. Yet at the same time, a little voice inside me said, “You must take calculus.” As I sat through calculus and biology that first semester, I began to realize that I enjoyed calculus and dreaded biology. Then I started tutoring students, and discovered my calling in life. I could understand and explain math well, because MEGSSS taught me the true foundational principles. Because of Burt Kaufman, Ed Martin, and Iain Ferguson, as well as other MEGSSS teachers, I understand *why*.

The sign on my classroom door is an Archimedes quote: “Mathematics reveals its secrets only to those who approach it with pure love, for its own beauty.” When my students ask when they'll solve a quadratic equation in “real life,” I just sigh. Yet, when they leave my class at the end of the year, they frequently make comments such as, “I used to hate math, but now I realize it's not so bad.” Sometimes I'll even hear one of them admit in a

hushed tone that they actually like math, and then I'll convince them to take AP Calculus.

I'm still slower than my students when it comes to long division. My friends won't let me keep score when we're playing games, because inevitably I'll add 24 and 5 to get 39. However, I love the theory of math, and I have shared that love with students in the United States, Kenya, and Ecuador. I wish I could bring the MEGSSS curriculum into every school for every student.

Thank you, Mr. Kaufman, for changing my life through MEGSSS.

Sincerely,

*Teri (Carpenter) Newburn*

B.S., Mathematics, Wheaton College, Wheaton, IL, 1998  
Mathematics Teacher and Department Head  
Alliance Academy International, Quito, Ecuador

## *Intellectual Passion*

“The creation of a thousand forests is in one acorn”  
Ralph Waldo Emerson (1803 – 82)

Thank you, Burt.

I'd like to express my deep appreciation of your guidance and my profound respect for your leadership and character. Even though I spent a short time in your program, I was profoundly impacted by the intellectual passion that you and Ed Martin were able to inspire. Your program demonstrates the enormous talent that people, especially the young, possess. I was inspired by your program, and when given the opportunity to teach physics at the University of Florida, I looked upon the students with awe and a sense of responsibility to help them go as far as possible. Your commitment and vision are something that I know lives inside many of your former pupils as an enduring testament.

Best wishes and warmest regards,

A handwritten signature in black ink, consisting of a large capital 'A' followed by a capital 'B' and a long horizontal line extending to the right.

*Anatol Blass*

Ph.D., Physics, University of Florida, 2001  
Senior Solutions Scientist, Information Based Medicine  
IBM Healthcare & Life Sciences

## *A Treasure*

Burt,

Being a MEGSSS graduate, I didn't know very much about the standard mathematical education everyone else was getting. I only came to appreciate what a treasure my education was when I did a post doc at a large state university. Through my teaching, discussions with my colleagues, and some advising for incoming freshman, I came to know quite a lot about the mathematical education most students receive. While the best of them had some real skill in doing computation, none really knew anything about mathematics. It was really eye-opening for me to see how much of what I took for granted was completely outside of these students' experiences.

Thank you very much for all of your hard work in making sure there was a MEGSSS for me to participate in and for the excellent quality of the program. I am sure that there will be a long line of us who benefit from your efforts to get students an education in mathematics.

*Larry Wilson*

Ph.D., Mathematics, The University of Chicago, 2002  
Center for Communications Research  
San Diego, CA

## *Dedication and Patience*

Dear Mr. Kaufman,

Thank you. Thank you for having the vision to see the potential in each of us whose lives you have made better. Thank you for having the dedication and patience to work for our benefit all these many years. Thank you for having the perseverance to keep the programs going no matter what obstacles arose.

As a child, I always appreciated individuals who created positive experiences for me from which I could learn and grow.

Becoming a parent has made it even clearer to me how rare that gift is. I can only hope that my daughter will be as fortunate as I.

So thank you again. I cannot possibly say it enough times to express what your work has meant in helping me establish the foundation on which my successes have been and continue to be built. I wish you much happiness in this next phase of your life.

With heartfelt appreciation,

*Natasha Chen*

Full-time Mom  
Formerly Senior Credit Officer  
Moody's Investors Service  
New York, NY

## *Dedication to Young Students*

I'm writing to express my deep appreciation for Burt Kaufman's dedication to young students, and for his most evident belief that, if we were pushed, we would rise to the (mathematical) occasion.

I remember being terrified during my first few days of MEGSSS summer “camp” back in 1991. It felt sort of like trying out some new and difficult form of physical exercise — like: I didn't know my brain could do that! I realized I had been coddled up to that point, and it was scary and wonderful to be surrounded by peers I could learn from and brilliant teachers like Burt Kaufman and Dennis Caruso who took learning seriously.

I have since graduated from Yale College and Harvard Law, and I can honestly say that 6<sup>th</sup> and 7<sup>th</sup> grade MEGSSS at Nova Middle (before they sadly phased out the program) were the most challenging academic experiences of my life. I often wonder how things would have turned out if I had been able to complete the full 6<sup>th</sup> – 12<sup>th</sup> MEGSSS program. It feels like those 2 years before I was even a teenager are the wellspring of my most useful quantitative and reasoning skills.

Thank you Mr. Kaufman, and please enjoy your much-deserved retirement!

*Ellen Lee Moskowitz*

Health Care Lawyer  
Ropes & Gray, Boston, MA

## *Individual Attention*

Dear Mr. Kaufman,

When Mr. Martin asked me to write something on the occasion of your retirement, I felt honored. The MEGSSS program that you created changed my life, and I am so grateful that I was able to be a part of it.

I don't know if you know this or not, but I was originally on the wait-list of students trying to get into the MEGSSS program. I had been less than thrilled with the idea of taking the entrance exam, and I really didn't give it an enthusiastic effort. But, when my name came up for the preliminary summer school down at Plantation, I thought I'd give it a shot. I know I was only 10 years old, but I remember those first days very well. Finally, I had found a program and teachers that were both interesting and challenging! I was hooked! My parents always joke that they moved all the way out to Coral Springs because of the great schools, but none of us ended up going to school out there. I was so excited to join the MEGSSS program that the long trip down to Plantation Middle really didn't bother me.

Over the next 5 years I learned a lot of math. Having done some teaching, myself, I am truly impressed that you were able to create a curriculum that encompassed logic, abstract math, and computer science in a manner that was understandable to middle and high-school students. During my first two years of high school, MEGSSS was my life! Rochelle [Pereira], Bhavika [Vyas] and I would spend hours after school on the phone discussing proofs. Then I'd come in before class for several hours and work with you and Mr. Martin and Mr. Ferguson to try and clarify what I didn't understand. I can't tell you how much your dedication meant to me! Beyond the time you spent in the

classroom, the extra individual attention you gave me kept me in the program. I know I learned a lot of math during this time, but I also learned that I could work really hard on something and even if it was intellectually very difficult with perseverance I could understand it. Certainly, MEGSSS paved the way for the caliber of material that I encountered at Harvard. I had a leg up over many of my peers!

On a day-to-day basis now, I don't use the math that I learned in MEGSSS. But, the way of thinking about a problem that I learned from your program is something I use every day. I think I am a better physician because of the 5 years I spent in MEGSSS learning from you and the other wonderful MEGSSS teachers. I truly believe that I can credit MEGSSS with much of my life success up until now, and I am grateful to you for providing students like me with the opportunity to learn math in an intellectually stimulating and challenging way.

Thank you!

*Cara O'Brien*

BA, Applied Mathematics, Harvard, 1999

MD, Washington University in St. Louis, 2004

Currently 3<sup>rd</sup> year resident in Internal Medicine, Duke University

## *Toil and Commitment*

Dear Mr. Kaufman,

Between the summers of 1988 and 1993, I was a student in the MEGSSS program. As a young person, I could not appreciate the complexity of developing and sustaining MEGSSS, but even then I realized that the material I was learning was far more advanced than the curriculum that students my age had access to. I relished the intense mathematical training as well as the non-mathematical benefits of being part of a group of hardworking, intelligent peers who might never have come together without the lure of MEGSSS. I still remember remarking to a friend in middle school that, after coming out of each MEGSSS class, I felt smarter! I still marvel that I was exposed to such a wealth of mathematics at such a young age.

After the demise of the MEGSSS program at Nova High School, I continued my studies and headed off to MIT, where I became a math major. I continued graduate studies at the University of Chicago and, after receiving my Ph.D. in 2005, took an academic job at a small liberal arts college in Minnesota. It amazes me that I was able to get this job — trying to move to Minnesota for personal reasons, I only applied to four academic jobs, which is unheard of in the tough academic job market. I attribute my success partly to the training I received in the MEGSSS program — working with other students on difficult MEGSSS problem sets developed my ability to teach and communicate mathematics with others. Even as a graduate student, I won a teaching prize in my department.

Now, as a college math professor in my second year of teaching, I have a deeper respect for the labor of teachers than I did as a middle schooler. I can only imagine how much toil and

commitment it must have taken to create the MEGSSS program — and her successful descendants! Of course, in the world of teaching, what happens in the classroom can be challenging, too. I still remember taking a course with you where I proudly conquered a difficult problem on those infamous part in-class, part take-home MEGSSS tests. You commented, post-exam, that this was a hard problem — but some people (you glanced my way) made it more laborious than it needed to be. You demonstrated an elegant solution in which the problem could be attacked with a few cases — many fewer than the twenty-six (or so) that I wrote up, and you had to grade!

After years of education, I can still say proudly that the MEGSSS experience was unlike any educational experience I have ever had — learning difficult material at a fast pace collaboratively and independently, with proper spelling and grammar to boot! I try to create such environments for my own students — and that, I have quickly learned, is no easy task. Several mathematicians I have met have mentioned educational programs that were seminal in their mathematical development: Arnold Ross's Number Theory Program, Boston University's PROMYS, and the Moore method at the University of Texas. For me, it was the MEGSSS program.

Mr. Kaufman, you have created a wonderfully rich experience for so many students in mathematics — a discipline that has not received enough educational attention in the U.S. I hope you know that your program has left a deep mark on its pupils. Congratulations on a much-deserved retirement! I can only hope that my own life will be filled with such meaningful and important work.

Indebtedly yours,

*Rochelle Pereira*

Ph.D., Mathematics, The University of Chicago, 2005  
Assistant Professor of Mathematics  
The College of St. Catherine, Minneapolis – St. Paul, MN

## *Matter-of-factness*

Dear Mr. Kaufman,

It seems rather odd to send such a note of appreciation to you. My impression has always been that you are less desirous of such praise than most. I'd even venture to guess that such a compilation may make you feel uncomfortable. And as much as the challenge of embarrassing you excites me in the same way that the challenge of stumping Ed on a matter of etymology used to, it's not why I'm including my thoughts in this collection. While perhaps a waste of time in your eyes, it's important for me nonetheless to write this note if only so that I can share my sentiments with fellow students and fans of yours. I know that I in turn will derive great joy from reading their praise for you, no matter how pointless all of this nonsense may seem to you.

I have had many teachers so far, most of them good. And yet I can easily say that none of them has cared more about the quality of their teaching than you. And at a time in my life when I often find myself questioning the value of professionalism, you and Ed stick out in my mind as examples of the ideal to which professionalism aspires. In fact, just as easily as I can say that no teacher of mine has taken their task of teaching me more to heart, it's just as trivially true that none of them have discharged this task in so professional a manner as have you. Even the possibility that I might have to revise this sentence to take into account some future teacher is remote if not outright laughable.

I would also like to share an anecdote that you have probably already heard via my mother. In my senior year of high school, when I was trying to decide where to go to college, I had decided in the course of Yale's admitted students weekend that I liked Yale the most, but needed first to make sure that I wouldn't have

to repeat any of my IMACS coursework. So I stopped in at the math department, only to find that the Director of Undergraduate Studies was away at a conference in New York for the weekend. But luckily Walter Feit was there, so I got to speak to him. I explained some of the work I had done with IMACS, and he asked where this place IMACS was. I told him, "South Florida." "South Florida's a big place," the reply came. That comment alone reminded me of you for its matter-of-factness.

Later in the conversation, after I felt assured that I wouldn't have to repeat too much coursework, I remembered to ask about the Putnam exam, as you had suggested. Of course, I wanted to know what sort of preparations the math department offered to its undergraduates for the exam, but the reply was as matter-of-fact as the last one: "Well, we administer the exam, if that's what you mean." I realize that for most prospective students, the dryness of this comment would have made them uncomfortable, but I knew it very well to be the plain demeanor of a mathematician. It betrayed the honesty of someone who cares about precision, and I valued that honesty so much that when I got into my parents' rental car and they asked how the math department was, I told them the story, only to point out that "he answered me just like Burt would have. I'm home."

As I said, you may think that all of this praise and appreciation is a waste of time, but we would beg to differ. On the bright side, at least I typed this so you don't have to put up with my handwriting! I wish only to add as a final note that I take enormous pride in having been both your student and your employee.

Sincerely,

*Scott Caplan*

BA, Mathematics, Yale College, 2006  
Currently a freshman at Harvard Law School



# Contributors

- B**  
Barmoha, Guy..... 93  
Blass, Anatol (James)..... 136  
Braunfeld, Peter..... 52  
Brinkman, Sue..... 84  
Broman, David..... 123
- C**  
Caplan.....  
    Mimi & Lawrence.... 102  
    Scott..... 144  
Cardin, Benjamin..... 109  
Carson.....  
    Larry..... 120  
    Peg..... 90  
Caruso, Dennis..... 89  
Chen, Natasha..... 138  
Crawford.....  
    Tom & Donna..... 105
- D**  
Dewar, Carol..... 119  
Dugger, Daniel..... 125
- E**  
Engel, Arthur..... 48  
Erickson.....  
    Marlowe..... 97  
    Sarah..... 116  
Esty, Ed..... 76
- Ewald, Brian..... 129
- F**  
Friedlander, Sherry..... 39  
Friedman, Daniel P..... 58
- G**  
Gillespie, Linda..... 36
- H**  
Heidema, Clare..... 69  
Hilton, Peter..... 45  
Hornstein, Marilyn..... 33  
Hunt, Doug..... 115
- J**  
Jefferson, Curt..... 35  
Jones, Sheila..... 94
- K**  
Karmos, Joe..... 65  
Klein, Phyllis..... 71  
Kundu, Tuni..... 128
- L**  
Lindblad, Jeanette..... 98  
Lorenzoni, Fr. Larry..... 66
- M**  
Manson, Dick..... 29

Martinsek, Adam.....	114	Simon, Harriet Furst.....	40
Matheis, Ken.....	133	Smith.....	
McDonald, M. Grace.....	60	Cille.....	80
Moskowitz, Ellen Lee.....	139	Verna Green.....	74
<b>N</b>		Springer, George.....	46
Newburn.....		Sterling, Nick.....	54
Teri (Carpenter).....	134	Sternberg, Adam.....	124
Newton, Paula Rhodes.....	111	<b>T</b>	
<b>O</b>		Thomas, Lola.....	113
O'Brien, Cara.....	140	<b>U</b>	
<b>P</b>		Upchurch, Dorothy.....	86
Pereira, Rochelle.....	142	<b>V</b>	
Pribble, Eve.....	38	Vandeputte, Christiane.....	81
Puricelli-Boyd, Carolyn.....	41	<b>W</b>	
<b>Q</b>		Ward, Ronald.....	88
Quadrino, Uylna.....	91	Wilson.....	
<b>R</b>		Chris.....	130
Rising, Gerry.....	50	Larry.....	137
Rogers, Nolan.....	30	<b>Y</b>	
Ross, Peter.....	72	Yudhishthu, Richard.....	132
<b>S</b>		<b>Z</b>	
Saunders, Kevin.....	78	Zaring, Wilson.....	56