

# Benita Albert's Kai-Fu Lee Story

(As published in The Oak Ridger's Historically Speaking column on November 20, 2017)

Roger Cloutier suggested this story. While the director of Oak Ridge Associated Universities' Professional Training Programs from 1974-1992, Ten-Ching Lee worked for him for a time. He knew her husband, Kai-Lin Lee was the brother of Kai-Fu Lee. And he had just seen where Kai-Fu Lee had been chosen to give the 2017 Commencement Speech at Columbia University. Roger thought Oak Ridgers should realize just how significant such recognition was and appreciate that Kai-Fu Lee was a product of Oak Ridge schools.

My reaction to Roger's suggestion was to think immediately of Benita Albert, retired Oak Ridge High School teacher who excelled working with students, especially gifted ones. So, I asked her if she remembered Kai-Fu Lee.

She did, and more than that, she agreed to write a series of *Historically Speaking* columns about her perception of Kai-Fu Lee while in Oak Ridge schools and to go even beyond to write about his most successful and astounding life since leaving Oak Ridge. She also shared his autobiography with me. What a treat it has been to read his autobiography!

Enjoy an amazing story of success from a man who credits Benita Albert with helping him start on his road to international fame and success. You will find this true story well beyond anything you could have imagined. So, now let's begin with the first part of this most interesting series...and remember, Kai-Fu Lee is a graduate of Oak Ridge schools!

...

## Introduction:

My forty-four years (1969-2013) of teaching mathematics at Oak Ridge High School allowed me to share the classroom with so many remarkable young minds. Most certainly my students helped me grow as a teacher and problem solver, and they gave me an optimistic view of the future considering the great potential I saw in them. Thus, it is my pleasure to assist D. Ray Smith in his newest effort to document stories of the students of Oak Ridge who are now making the world a better place.

## Kai-Fu Lee

Kai-Fu Lee graduated from Oak Ridge High School in 1979. In 2013 he was selected as one of the "100 Most Influential People in the World" by *Time* magazine for his innovations and leadership in the field of computer science.

Kai-Fu arrived in Oak Ridge in 1972 to live with his brother Kai-Lin Lee, a scientist at the Oak Ridge National Lab. Kai-Lin convinced his parents that an American education would be an enhancement opportunity, quite different from the early years of Taiwanese schooling Kai-Fu had completed. Kai-Fu was enrolled in St. Mary's School of Oak Ridge where he quickly found that his English language skills were seriously lacking though he had previous training in English.

In a recently published autobiography, Kai-Fu recognized the patience and caring of Sister Mary David, St. Mary's Principal, who tutored him in reading during her lunch break. He remembers that Sister Mary began with first grade reading texts and that her patience and encouragement were tireless.

Math class was different, Kai-Fu was eager to participate. He fondly recalled his math teacher writing the incomplete equation  $1/7 = \underline{\hspace{1cm}}$  on the board to which he quickly and eagerly replied,  $0.142857$ . He shocked both his teacher and his St. Mary peers who did not understand that his previous Taiwanese education required the memorization of such facts. Since there were no student calculators, the first six decimals given so quickly could only be peer-checked by long division.

I first met Kai-Fu in 1977-78, his junior year at Oak Ridge High School. His previous ORHS math teacher recommended that Kai-Fu be permitted to take two math courses during his junior year, Math Analysis and Advanced Placement (AP) Calculus BC.

# Benita Albert's Kai-Fu Lee Story

(As published in The Oak Ridger's Historically Speaking column on November 20, 2017)

He was certainly well-qualified and motivated to take on this special course load, his love for mathematics was contagious in the classroom. Kai-Fu ultimately made the highest possible score on the national AP exam, qualifying him for college credit and placement beyond the first year of collegiate calculus.

Kai-Fu's advanced standing posed problems for continued math coursework at ORHS as he had topped out of the curriculum along with two others of his ORHS peers. I was fortunate to have received an instructor's appointment at the University of Tennessee Evening School teaching the sophomore level courses of Differential Equations, Multi-variable Calculus and Linear Algebra. The Chairman of the UT Mathematics Department, Lida Barrett, had encouraged me to take this assignment on as a pilot for future implementation of the same courses into the ORHS curriculum.

For two years I not only taught adults but also my ORHS students who traveled to UT evening classes with me. These classes were mostly peopled by adults seeking undergraduate degree course requirements to enhance their careers. It was an interesting blend of very young and bright problem solvers with mature and hard-working adults. I felt they taught each other not only quick and creative thinking but also the value of diligence, patience and hard work. Kai-Fu, an infinitely kind young man, would always gladly help and encourage his fellow students.

It should be noted that as the number of ORHS juniors in AP Calculus quickly grew, the UT evening course option became untenable. In 1979-80, Calculus 2, the sequel to AP Calculus BC, was first offered at ORHS with the support of the University of Tennessee who made provisions for ORHS students to receive college credit. This course continues to the present day and another sequel course, Math Thesis, has been added. Kai-Fu and his peers were the pioneers of this new course offering and the inspiration for curriculum innovation at ORHS.

Another significant mathematical experience for Kai-Fu was his selection to the prestigious University of Chicago summer math camp between his junior and senior years. This program, under the mentorship of noted mathematician Paul Sally, took students far beyond high school mathematics, introducing them to diverse fields of math studies and creative thinking and problem solving.

Kai-Fu's ORHS peers, Phillip Yoo and Ram Uppuluri, also attended the camp, and they became fast friends that summer. They bonded over more than math, including adventures in dorm living, exploring the Big City and Bridge card games. Bridge would later become Kai-Fu's favorite college pastime.

Kai-Fu asked me to write his college recommendations, twelve in all, not an easy task in the pre-computer composing/filing days. This teacher felt such a job to be of utmost importance as the result could greatly affect students' future training and career choices. In the case of Kai-Fu, the job was easy.

He had a diverse resume including winner of the State of Tennessee Math Contest, highly advanced studies in math, strong academic performance overall, leadership in Junior Achievement where his business team earned first place in sales and profits, and elected positions such as a Class and a Student Council officer. It was difficult to later learn that Kai-Fu was turned down by his first four college choices, and even more difficult to observe his disappointment. I remember telling Kai-Fu that those colleges who did not select him would surely regret it as I was certain he was a future world changer.

If only I had had the prescience to say that he would be named one of the "100 Most Influential People in the World" thirty-four years later. Columbia University became the college winner, it was in this rich academic environment that Kai-Fu identified his future. He entered Columbia thinking he would pursue a major in mathematics, but he soon was enthralled by the opportunities offered in the field of computer science.

The rest is legendary, Kai-Fu is now considered one of the world experts in computer science and technology innovations. I would like to believe that his strong penchant for math helped make him

# Benita Albert's Kai-Fu Lee Story

(As published in The Oak Ridger's Historically Speaking column on November 20, 2017)

successful, but I also know that his mind is always wide open, inquisitive, entrepreneurial and sharing. I could not be prouder to say that I once shared a classroom with Kai-Fu Lee, one of many great ORHS students now making the world a better place.

Further accounting of Kai-Fu's life will follow in future articles, namely his collegiate and career accomplishments. I will end this part of his story by praising the ever humble and grateful nature of Kai-Fu. Though his career has been demanding of his time, he has always found ways to give back.

Most recently, Kai-Fu answered the call to write an ORHS Class of '79 memory for a book celebrating the first 75 years of the Oak Ridge Schools. This book, sponsored by the Oak Ridge Public Schools Education Foundation, will be released in the fall of 2018. The Foundation is honored that Kai-Fu continues to show interest and support for the Oak Ridge Schools.

...

Thank you, Benita, for this first installment in the series on the life of Kai-Fu Lee. When I called Kai-Fu Lee to get his permission to publish this story, have him send photos and to get a quote from him, here is what he had to say about Benita Albert: "Mrs. Albert was the best teacher I've ever had. She was smart and witty. She was inspiring and loves math from her heart. From her classes, I learned to love math. More importantly, I learned that it was possible to love a subject or a job. She taught her students in accordance with their aptitude and interest. For someone who loved math (like me), she went out of her way to drive me to college classes. And for others who had trouble, she was patient with them and spent enough time to ensure they grasped the materials."

Wow, what a testimony to one of our own!

Now, do you agree that *Historically Speaking* column was nothing short of amazing! We experienced an excellent writer who knew her subject well and a true to life adventure that makes us Oak Ridgers proud as can be! And there is more to come as Benita writes more about Kai-Fu and his amazing career. If you just cannot wait to learn more, I suggest you go to this web site to listen to his recent speech at Columbia University: <https://www.youtube.com/watch?v=KU1htzJYInU>

Even beyond this series on Kai-Fu Lee's life story, Benita and I want to continue this trend to other graduates of Oak Ridge schools. Our goal is to bring you true to life stories of Oak Ridge school graduates who have gone on to make major impacts on their world.

Do you have suggestions for people you know who have succeeded in major ways who came through the Oak Ridge school system? We would appreciate hearing from you. Call me at 865-482-4224 or send an email to [draysmith@comcast.net](mailto:draysmith@comcast.net).



Kai-Fu Lee while in Oak Ridge High School

## Benita Albert's Kai-Fu Lee Story

(As published in The Oak Ridger's Historically Speaking column on November 20, 2017)



Kai-Fu Lee receiving a junior achievement best company award while at ORHS from Roger Hibbs, President of Union Carbide Nuclear Division and Norm Sparks, Junior Achievement Advisor for UCND