

## Remembering the Legacy of Dr. William W. Shaw

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**Summary:** There are some plastic surgeons who have had the fortunate opportunity to train with the Institute of Reconstructive Plastic Surgery at New York University or the Division of Plastic and Reconstructive Surgery at the University of California, Los Angeles. The rich and celebrated histories of these premiere plastic surgery units are decorated by the contributions of Dr. William Shaw. Those who have gone on to practice reconstructive plastic surgery are particularly indebted to his teachings and work. Through his education of students, residents, and fellows, his contributions have extended far beyond the halls of New York University and the University of California, Los Angeles. This year, 2012, marks what would have been the seventieth birthday of Dr. William Shaw. Although quantifying Dr. Shaw's impact is difficult, he has contributed greatly to the field of reconstructive plastic surgery, in particular, microsurgery. His devotion to plastic surgery is ingrained in the practices of the many leaders, academicians, and clinicians with whom he has interacted. For the benefit of contemporary plastic surgeons and generations to come, some of these colleagues reflect, in an attempt to best capture his legacy. (*Plast. Reconstr. Surg.* 131: 270e, 2013.)

### Sherrell J. Aston, M.D.

I first met Bill Shaw when I arrived at the University of California, Los Angeles for a general surgery internship in July of 1968. We could not declare our intentions to pursue careers in plastic surgery until ensuring an appointment as a chief resident.

Uncle Sam gave Bill a 2-year trip to Thailand, and I continued through general surgery. Once I arrived in New York, Bill and I talked on the phone once a week. Bill was enthusiastic about the plastic surgery residency at New York University. Bill's contributions to our department are legendary. He and Dan Baker made the cover of *Time* magazine, when they reattached the hand of a young pianist.

In 1987, my wife, Michelle, and I arrived at the airport in Beijing in the middle of the night. The first person we saw when we got off the plane was Bill Shaw. He quickly ushered us to a brand new Mercedes limousine waiting at the curb and said, "Do not worry about your suitcases, I will take care of them." Our driver sped us to our hotel just on the outskirts of Beijing. By the time we got to our room, our suitcases were already there. The only thing I

understood from the porter was, "Dr. Shaw." I still do not know how he was able to make that happen so quickly. But I should not have been surprised—Bill frequently did the next to impossible.

I miss Bill (Fig. 1). He was a great friend.

### Joseph G. McCarthy, M.D.

I met Bill Shaw shortly after he arrived at New York University to begin his plastic surgery residency. I was the most junior member of the faculty at that time. Consequently, I was spending considerable time at Bellevue Hospital. I quickly recognized Bill for his innate talents. He was bright, analytic, and "cool under fire." He was skilled at problem solving and was intrigued by surgical challenges, none of which, in his mind, seemed beyond solution. He combined all of this with a dedication to teaching. We easily bonded.

John Converse and I enthusiastically appointed him chief of plastic surgery at Bellevue Hospital. Immediately after his appointment, the clinical activity on the service increased dramatically. He was indefatigable and literally lived at Bellevue. He blended night into day, and I remember early one morning talking to him, as he was sitting on a gurney eating an ice cream cone just retrieved from the dispensing machine. Hav-

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**Fig. 1.** Dr. William W. Shaw. (Reprinted with permission from McCarthy JG. William Wei-Lien Shaw, M.D., 1942 to 2010. *Plast Reconstr Surg.* 2011;127:1026–1027.)

ing worked all night on a lower extremity replantation, he was about to embark on an all-day microvascular free flap case and showed no signs of fatigue.

At that time, we were both young and our relationship was truly complementary and supportive. My interest was in craniofacial surgery and his was in microsurgery. I recall flying to Los Angeles once for a meeting; during the flight, we proposed a nasal reconstruction flap based on the supratrochlear vessels and incorporating the outer table of the frontal bone. On our return to New York, we performed the procedure; however, it resulted in a marble-like nose, never to be repeated!

As I look back, I treasure the 10 years we worked together, years that were some of the happiest of my entire professional career. We worked jointly to plan the future of the Institute. Although we could disagree conceptually, we never had an argument. Most decisions were made in the best interests of the residency and fellowship training programs. However, there were moments when Bill could become extremely quiet and almost impenetrable. The Asian ascetic side could be balanced by the Southern Californian spirit shaped during his formative years when his father was on the University of California, Los Angeles faculty. I remember a meeting in Las Vegas when we rented a boat on Lake Mead and took the residents waterskiing. The beach boy side of him was so apparent.

I hated to see him leave the New York University plastic surgery faculty, but I recognized and supported his desire to become a chief. He went to the University of California, Los Angeles with enthusiasm and commitment to create a unique teaching service and to promote microsurgery. I miss my friend and colleague and often think about him. However, I am filled with such warm memories of the time we spent together as young surgeons in New York. His life was cut far too short.

#### **Daniel C. Baker, M.D.**

It deeply saddens me to recall our professional and personal relationship because I really miss him. We began our plastic surgery residency together in 1975 and immediately bonded during those exciting years at the Institute. Bill sparked my interest and helped me learn microsurgery skills in the rat laboratory at New York University. He was the “master.” His perseverance, stamina, and intellectual drive were superhuman. During our residency, Dr. Converse was our most enthusiastic supporter.

The first replants and free flaps were performed while we were residents borrowing ophthalmology instruments and the otology microscope at Bellevue. We were neophytes then, and those cases could take 12 to 18 hours on average. We had no assistants or fellows and I remember the operative field would suddenly shake when Bill or I dozed off and our head would hit the microscope. In those early years, we spent hundreds of endless nights in Bellevue developing microsurgical skills, eating cold pizza, and sharing life stories about our youth and drifting into silly laughter as we became overtired and giddy.

I loved that time spent with Bill—the intellectual and surgical challenges, the camaraderie, being a participant in this exciting new technology as the two most junior faculty at the Institute. On June 7, 1979, our lives would change dramatically. He and I spent 16 hours reattaching the hand of Renee Katz, a 17-year-old music student whose hand was run over by a subway train. We finished at 2:30 AM, exhausted but with a great sense of surgical accomplishment. To our surprise, this case made national and international news for days.

I always knew Bill had his sights on his own independent service, so it came as no surprise when he accepted the chairmanship in plastic surgery at the University of California, Los Angeles. Under his leadership, one of the best plastic surgery residency programs in the United States was

developed. The first time I visited Bill in Los Angeles, he was so proud to show me his service and to speak about his outstanding faculty and what his future plans were. I miss my friend deeply. I feel so fortunate to have spent so many years and timeless hours performing innovative, challenging surgery with Dr. William Shaw. I have wonderful memories.

**David T. W. Chiu, M.D.**

I first got to know Dr. William Shaw in January of 1981 when I joined the faculty of the Institute of Reconstructive Plastic Surgery. Dr. Shaw gave me complete support and invited me to join the replantation team that he and Dr. Dan Baker had initiated. In 1986, on the major anniversary of Bellevue Hospital, Bill wanted to hold a microsurgery symposium. The symposium was a great success and marked the emergence of Bellevue Hospital as a leading replantation and microsurgery center in the world.

On January 12, 2002, we spent an evening sailing during the beautiful sunset off the coast of Cancun, Mexico. We shared each other's burdens, sought each other's counseling, and enjoyed each other's cheerleading. It was the last time we got to talk to each other. He fell ill soon afterward and never fully recovered. I must count it as a blessing that I had met Bill. He is a quintessential teacher, a fearless leader, and a trailblazer who brought microsurgery to the forefront of the surgical world through his indomitable tenacity, gifted skill, and endless courage.

**Robert J. Allen, Sr., M.D.**

Bill Shaw's first microsurgery fellow, Tom Crais, joined the Louisiana State University faculty just before my residency started in 1980. We performed the first free flap in Louisiana, and I caught the microsurgery bug.

I became Bill's fellow in 1982. Two of the New York University faculty and former microsurgery fellows, Mauro Romito and Norm Godfrey, sat me down to discuss the fellowship. They said what you need to learn over the next year from Bill is how to think Chinese. Bill looked at each patient as a unique problem needing solving. As a master microsurgeon, he could always plan and provide the perfect operation for that patient.

A young lady was brought to Bellevue Hospital with a bilateral hand amputation. One side was through the wrist with the hand destroyed and the other through the mid forearm. Bill organized a hand switch, replanting the good hand on the

good distal forearm. I was on the second team and responsible for the nerve and tendon repairs. That definitely required being able to think Chinese!

The International Society of Reconstructive Microsurgeons met in Manhattan near the end of my fellowship. It was the best meeting I had ever attended. I told Bill I wanted to join. He replied that one could not unless one made a major contribution to the field of microsurgery. That challenge has driven my career.

**Malcolm A. Lesavoy, M.D.**

Bill Shaw and I were nearly complete contemporaries. Bill finished his general surgery residency at the University of California, Los Angeles and I finished my general surgery residency at the University of Chicago. Both of us followed the path of plastic surgery residency, Bill at New York University and me with Dr. Millard at the University of Miami. We then continued on in our academic careers, Bill at New York University and I at the University of California, Los Angeles with Dr. Harvey Zarem.

Being approximately 3000 miles apart and not knowing Bill personally for those early years, I admired his writings on microsurgery and his innovative procedures. Subsequently, after the retirement of Dr. Zarem as the chief of plastic surgery at the University of California, Los Angeles, Bill traveled back to his Los Angeles roots and became the chief of plastic surgery in 1989. Shortly after his arrival, he essentially magnified the entire microsurgical service at the University of California, Los Angeles. Although microsurgery and replantations in hand surgery were still handled by myself, Dr. Roy Meals, and Dr. Neil Jones, Bill essentially brought microsurgery to an entire new level at the University of California, Los Angeles.

Bill sacrificed a tremendous amount when he came to the University of California, Los Angeles in his years as chief. He sacrificed financially, professionally, time with his family and, as we were later to learn, his health, which proved to be fatal. In short, Bill Shaw's hard work, dedication to plastic surgery, resident teaching, and promulgation of microsurgery in the world should never be underestimated. He is sorely missed at the University of California, Los Angeles, New York University, and the global plastic surgery community.

**Mark D. DeLacure, M.D.**

As an otolaryngology resident at Yale, I became interested in microsurgical mandibular reconstruction. We had been using cadaveric man-

dible trays and Morris external fixators à la Marx, which had significant limitations. I sought the advice of my mentor Stephan Ariyan, who strongly advised the pursuit of “full training” in plastic surgery. When I matched at the University of California, Los Angeles, newly reorganized under Dr. Shaw, Dr. Ariyan was clearly pleased.

I had developed an uninformed mental image of Chief William Shaw as a tall, blonde stereotypically Southern Californian surfer. On my interview day, little did I know that the mental picture more accurately identified Dr. Lesavoy rather than Dr. Shaw, as I unknowingly passed him in the hallways early that day.

In the years that followed, I learned to approach a wide range of challenges in reconstructive plastic surgery with confidence, thoughtfulness, and unlimited creativity, in a way that only working with Bill, his mastery of microsurgery, and the earthquakes that struck, could have taught. I learned of Bill’s death while preparing a lecture honoring him, some years after my departure. Although a veteran of many difficult and challenging cases, I felt somehow alone. The only thing we were not well trained in was thrombosis and flap failure—because we saw none. I was later to learn that on my own.

#### **Lan Mu, M.D., Ph.D.**

I first met Dr. Shaw at a scientific congress in Beijing in 1996 while I was a Ph.D. student, studying breast reconstruction. I greatly appreciate Dr. Shaw for his recommendation and encouragement to apply for a Plastic Surgery Educational Foundation International Scholarship, which I was awarded in 2000. This gave me the opportunity to spend time with Dr. Kroll at M. D. Anderson Cancer Center, Dr. Allen at Louisiana State University, and Dr. Shaw at the University of California, Los Angeles. It is from him that I have learned how to cooperate with breast oncologists, and I have been doing my best to popularize the technique and knowledge of breast reconstruction to benefit patients in my country.

#### **James P. Bradley, M.D.**

Bill Shaw was at his best teaching when doing walk rounds on Saturday morning at the University of California, Los Angeles. Even as a Kawamoto craniofacial fellow, I made sure that I attended all of these valuable sessions. These sessions provided a glimpse of this great surgeon’s clinical thought process and documented his creative reconstructive treatment strategies.

Dr. Shaw established a microsurgical training fellowship that was a model for other institutions. During his time as chief at the University of California, Los Angeles, the three fellowships of craniofacial surgery (under Henry Kawamoto), hand (under Neil F. Jones, M.D.), and microsurgery (led by himself) were considered the strongest in the nation.

From my interest in paddle surfing, I have gotten to know Victor Shaw, Bill’s son. Victor is an avid surfer and works at ZJ’s Boarding House on Main Street in Santa Monica. Victor had the ultimate respect for his father but rarely had direct interaction with his dad’s surgical side. Victor recalled a time in his early teens when he cut his forehead open. He remembers his own panic as blood dripped down his face. He also remembers his dad’s incredible calmness and compassion in those moments as he carefully repaired his forehead laceration right there on the kitchen table.

#### **Babak J. Mehrara, M.D.**

I first met Dr. Shaw when he came to New York University as a visiting professor in fall 2000, when he gave a series of lectures on his career in microsurgery. They were so incredible that I immediately knew that I wanted to do a fellowship with him. The last-minute withdrawal of my hand fellowship position posed a slight problem, but I campaigned hard and, in the end, was lucky enough to secure a position with Dr. Shaw. Packing up possessions and the entire family, we moved out to Los Angeles.

My fellowship with Dr. Shaw was a life-changing event. Not only did I learn the science and art of microsurgery, but he taught me to think creatively, how to approach each problem uniquely, and how to plan complex operations. Dr. Shaw had an amazing presence and calm that not only announced his presence but also made him the clear leader of the surgical team. He was unflappable even under extremely stressful situations, such as, for instance, inadvertently cutting through the anomalous pedicle for a latissimus flap in a patient with Poland syndrome. He calmly removed the flap, and asked the scrub nurse to put it on ice and bring in the microsurgery equipment. Advising the anesthesiologist that “it will be a few more hours,” he then had a cup of coffee as the nurses set up the microsurgery tray, returned to the operating room, and simply reanastomosed the vessels. I am certain that his heart rate never went above 90 the entire time!

Dr. Shaw has left a lasting legacy by training a vast number of microsurgery fellows and leaving

his indelible mark on their careers. His early loss was a tremendous tragedy to plastic surgery but, fortunately, his teaching and approach live on.

### Jamie P. Levine, M.D.

I had the fortunate opportunity to meet Dr. Shaw several times when he was surgically active. I am the current chief of plastic surgery at Bellevue Hospital, which is the flagship New York City public hospital where Dr. Shaw had spent the majority of his early career. I am also chief of microsurgery at New York University, another service that Dr. Shaw started. It is these connections, and an understanding of what he created, that makes me feel that I know him well.

I was fortunate to be at New York University when Dr. Shaw came back as a visiting professor in the early 1990s. At the time, I only knew of him as the prestigious chief of plastic surgery at the University of California, Los Angeles. It was not until I saw him enter Bellevue Hospital to do rounds that I understood who he really was and what legacy he had created at that institution.

I witnessed people from every level of the medical center coming up to him with joy and well wishes. To all, he was still an iconic hero. What I realized then, and what I still know now, is that Bellevue is his place. I am working in the house that he built. Just like what Ruth did for the Yankees, Dr. Shaw did the same for Bellevue Hospital. It is because of Dr. Shaw that we have an ever active and growing microsurgical program at New York University and Bellevue. His contributions to plastic surgery are without question. His legacy at Bellevue and New York University will be forever.

### ABOUT DR. WILLIAM W. SHAW

Dr. William Wei-Lien Shaw was born in China in March of 1942. He emigrated to the United States, where his father joined the faculty at the University of California, Los Angeles. After graduating from Los Angeles High School in 1960, he would begin the first of his many years at the University of California, Los Angeles. There, he studied biology/chemistry, receiving his undergraduate degree in 1964. With a strong interest in medicine, he continued his medical school studies at the University of California, Los Angeles. His leadership skills were evident as early as 1968, when he earned his doctor of medicine (M.D.) degree and graduated as president of his class.

Training brought a young Dr. Shaw to New York, where he completed a medical internship at

Albert Einstein Medical Center. He returned to the University of California, Los Angeles to complete a general surgery residency program under the distinguished Dr. William P. Longmire. This was interrupted for 2 years, as he served as a U.S. Army surgeon in Thailand.

In 1975, fate would bring him back to New York, only this time Dr. Shaw would find another home away from home. As early as his plastic surgery residency at the Institute of Reconstructive Plastic Surgery at New York University, Dr. Shaw helped pioneer the young field of reconstructive microsurgery. He assisted in developing a microsurgery and replantation service at New York University, and after finishing the residency in 1977, he stayed on as a faculty member. Dr. Shaw would now begin his long tenure of training an era of contemporary experts in reconstructive plastic surgery.

Fourteen years after his arrival at New York University, Dr. Shaw returned home to the University of California, Los Angeles in 1989 as professor and chief of the Division of Plastic and Reconstructive Surgery. There, he developed a comprehensive reconstructive surgery practice and was instrumental in the creation of a premier plastic surgery training program. Honoring his commitment to education, Dr. Shaw continued his tradition of teaching the next generation of reconstructive and microvascular surgeons.

Dr. Shaw passed away in 2010.<sup>1,2</sup> His legacy and contributions to the field of plastic and reconstructive surgery are indelible. His clinical work remains ingrained in his 170-plus peer-reviewed publications. The philosophies, teachings, and work ethic of Dr. Shaw remain pervasive among the countless number of plastic surgeons, microsurgeons, and medical students he has trained.

Dr. Shaw should be regarded as one of the forefathers of reconstructive plastic surgery. Please join us in reflecting and remembering the contributions made to this wonderful specialty by this prolific clinician, academician, leader, humanitarian, veteran, and teacher.

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