

## Steven A. Symes

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**ABSTRACT:** Steven A. Symes is primarily known for his scholarly work on skeletal trauma analysis and for his applied casework and frequent courtroom appearances providing forensic anthropology testimony. However, many may not know that throughout his career Steve has also been a proponent of photography and microscopy. This biography serves to introduce some and enlighten others as to how Steve ended up in forensic anthropology, highlighting aspects of Steve as a mentor, colleague, and friend. This manuscript is based on a chat between the authors, with some details filled in via supporting documents and colleagues.

**KEYWORDS:** Steven A. Symes, taphonomy, trauma, photography, repatriation, biography

Sitting around a table littered with papers, books, and projects in progress as well as a few beers and a purring cat, we sat down with Steve Symes (pronounced “Sims”) for an interview in early December 2020. In subsequent follow-up phone calls, Steve said that his biography is “not that interesting a topic,” but we hope you will disagree. Steve is a pioneer in the discipline of forensic anthropology, a trailblazer in skeletal trauma research, a world-renowned expert witness, and an excellent friend with more than a few interesting stories.

For anyone unfamiliar, within forensic anthropology Steve is known primarily for his work on trauma analysis ranging from simple explanations of tension and compression in blunt trauma (Berryman & Symes 1998), to detailed microscopic analysis of sharp trauma (Symes et al. 1998), and the examination of whole-body patterns of modification such as burn patterns (Symes et al. 2015) or constellations of injuries from child abuse (Gunther et al. 2000). Those who have worked with Steve are familiar with his use of a homunculus in his reports, not just to note the presence/absence of remains for a case but for demonstrating patterns of skeletal modification from traumatic and taphonomic agents. Steve has many accomplishments and has earned numerous honors over the course of his career. This biography, part of the On the Docket series in *Forensic Anthropology*, is meant to highlight Steve’s professional accomplishments while humanizing Steve’s career in

forensic anthropology. As such, this paper will provide an overview of how Steven A. Symes became the Steve Symes we all know.

Steven A. Symes was born on 10 April 1954 in Wessington Springs, South Dakota, the middle child between his two brothers, Merle and Lennie. Steve grew up on his parents’ (Ray and Mildred Symes) 1,700-acre cattle ranch, which is still in the family today. Steve worked for much of his childhood and adolescence on this ranch and participated in livestock-related 4-H events in his youth. Steve says that he had “500 head of cattle to check on” once a week on his (very slow) horse named Bob. He attributes some of his later interest in forensic anthropology and medicolegal death investigation to his time on the ranch. Steve recalls there were many instances where “things would happen to the cattle” and he would try to figure out the circumstances of these disappearances or deaths.

Those who know Steve would not be surprised to learn that he was always a little rebellious. However, most may not know that Steve was a first-generation college student (his brothers also have college degrees). Steve’s mother attended some college but never finished. Steve went to the University of South Dakota (USD) for his undergraduate degree, first majoring in history before switching to anthropology after USD hired an archaeologist. When asked why he switched from history to anthropology, Steve said: “History is so damn boring, you have to make it factual.” Clearly the applied nature of anthropology appealed to him.

After completing his bachelor’s degree in 1976 (Fig. 1), Steve worked for the South Dakota state archaeologist, a job he got through a connection between his archaeology professor at USD and the newly hired state archaeologist, Dr. Robert A. Alex. Dr. Alex (Bob, as he was known to those around him) was an early proponent of repatriation and the importance of working with descendant communities. While working for Dr. Alex, Steve was tasked to go through the collections of the South Dakota Archaeological Research Center to locate human remains with “prehistoric” origins

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and conduct initial inventories. During this work, he taught himself osteology using the book *Human Osteology: A Laboratory and Field Manual*, by Dr. William Bass (Bass 1974).

To assist with the osteological analyses of the collection (around 500 individuals), Dr. Alex reached out to Dr. Bass at the University of Tennessee (UT) Knoxville, and a contract was set up. Dr. Bass (this is how Steve still refers to him) came to South Dakota in 1978 to see the collection. It was during this visit that Steve first met Dr. Bass. He recalled telling Dr. Bass that he taught himself osteology using Bass's book. This interaction had a profound impact on Steve. While out on a survey one day, he walked over to a payphone and called Dr. Bass. Steve recalls being scared to call him, and to this day he does not know what possessed him to reach out, but this phone call would cement Steve's future in forensic anthropology. Dr. Bass immediately remembered Steve and encouraged him to study with him at UT Knoxville. So Steve, along with the Native American remains and his initial inventories from the South Dakota Archaeological Research Center, traveled to Knoxville.

In many ways, Steve stayed close to his South Dakota roots. His master's thesis examined Harris Lines as an indicator of developmental stress in tibiae from the Crow Creek Massacre (Symes 1983). He does not recall how he ended up with this particular topic for his thesis, and thinks it was probably just a project that needed to be done. In 1986 he drove from Tennessee to South Dakota with the Native American remains for the repatriation ceremony that initiated his passion for studying human osteology (Fig. 2).

During graduate school at UT Knoxville, Steve would take classes from many impressive faculty, but it was Dr. Bass whom Steve most admired and worked most closely with. From 1980 to 1986, Steve served as a forensic anthropology assistant for Dr. Bass. Of this partnership Steve wrote: "I dare say there was never a better team in the field or in the classroom" (Symes 1992:iv).

"My career was all directed by incredible mentors," Steve said. He describes Dr. Bass as "an amazing mentor," and they still keep in touch, usually with at least one phone call a year. Steve also credits Dr. Alex as being one of his professional heroes. Steve describes Bob as "just a cool guy" and said that without the opportunities or mentorship from Bob, he would not be where he is today. Bob was known for inspiring his students, always willing to share his knowledge. It makes sense that later on Steve would emulate this mentor. Unfortunately, Bob died at the age of forty-one of an acute asthma attack in 1988 (Tiffany 1989).

After Steve completed his master's degree, he worked as the forensic anthropologist and morgue director for the Davidson County, Metropolitan Nashville Medical Examiner's Office in 1986 and 1987. Steve recalls that his first desk was located "right next to an autopsy table," which he notes was "kind of a distracting place for an office." A year later he was hired by Dr. Hugh Berryman (forensic anthropologist, a student of Dr. Bass, and, according to

Steve, "a meticulous cat") to work as a forensic anthropologist and forensic scientist at the Shelby County Regional Forensic Center Medical Examiner's Office in Memphis. There, Steve worked closely with Dr. Berryman and



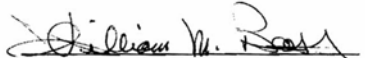
FIG. 1—Steve and friend Jeff Bucheler around graduation time, 1976. Courtesy of Renee Boen.



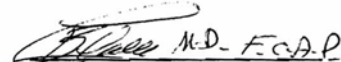
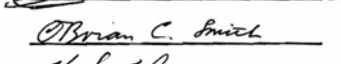
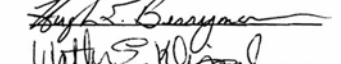

FIG. 2—Steve in front of the truck he drove from UT Knoxville to South Dakota for the 1986 reburial of Native American remains. Photo Accession 1119B03-010. Courtesy of the South Dakota State Historical Archaeological Research Center.

To the Graduate Council:

I am submitting herewith a dissertation written by Steven A. Symes entitled "Saw Tool Marks on Dismembered Human Bone: An Examination of Saw Cut Features." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Anthropology.

  
William M. Bass, Ph.D., Major Professor

We have read this dissertation  
and recommend its acceptance:

  
Brian C. Smith  
  
Jeffrey Berryman  
  
Walter S. Haggard  
  
[unclear]

Accepted for the Council:


  
Associate Vice Chancellor  
and Dean of The Graduate School

FIG. 3—Steve's dissertation page with Dr. Bass's signature, 1992.



FIG. 4—Steve in his office at Mercyhurst, 2007. Courtesy of Dennis C. Dirkmaat.

Dr. O'Brien C. "O.C." Smith, a forensic pathologist. These two were both mentors to Steve. Together they would have weekly meetings to talk about trauma, and their group was informally known as the Symes-O'Brien-Berryman Team (or the "SOB Team"). Steve says that O.C. Smith taught him that "the goal of an anthropologist is to improve the accuracy of the cause and manner of death decision" and that this "became my goal for the rest of my career."

The SOB Team would revolutionize forensic anthropology. This trio demonstrated the utility of having forensic anthropologists present at autopsy, particularly as full-time staff in medical examiner/coroner offices (Berryman & Lanfear 2012; Passalacqua & Fenton 2012), but they also expanded the role of forensic anthropology as an important contribution to determination of cause of death through skeletal trauma analysis. Steve credits the Memphis medical examiners, including Jerry T. Francisco (known for performing the autopsies of . Martin Luther King Jr. and Elvis Presley), with allowing forensic anthropologists the opportunity to do more than any others were doing at the time, including going directly to forensic scenes and retaining bone specimens for evidentiary purposes. He recalls the very first time that Dr. Smith allowed him to retain bone as evidence. By the end of his time in Memphis he was up to 140 cases in a year, usually with associated specimens retained as evidence.

While Steve worked at the Memphis office, he was also slowly chipping away at his dissertation (Symes 1992), changing his topic at the last minute from histological examination of clavicles to analysis of saw marks. Steve says that part of his motivation for finally finishing was to ensure that he had Dr. Bass's signature on his degree before Dr. Bass retired (Fig. 3). Steve's dissertation focused on the analysis of saw marks in bone; specifically, he examined micro- and macroscopic residual characteristics of saw marks in bone for their use as indicators of saw class, relying heavily on a basic understanding of saws and the principles of cutting action (Symes 1992). When asked how he came upon this topic, Steve said: "I've always had an interest in tool marks and broken bones. People always ask how I got into trauma analysis. It's fascinating . . . as an anthropologist, I had to learn my osteology anyhow, I get in there and I can figure out what's going on. . . . You can tell so much of the story once you figured out what created the fracture in the bone, or the cut mark, or whatever." Part of the groundbreaking importance of Steve's work with saw marks is that he was "the first scientist in the world to disprove the commonly held tenet that saw marks always cut away their own evidence" (Blalock 2018).

In 1997, Steve earned his certification from the American Board of Forensic Anthropology (ABFA; certificate #57) while still in Memphis. However, in 2002 the medical examiner's office had become embroiled in controversy surrounding the actions of Dr. Smith (Su 2005; Watts 2019), and Steve felt the time was right to make a career move.

In 2003, Steve began teaching at Mercyhurst College in Erie, Pennsylvania (Fig. 4). Mercyhurst (later designated Mercyhurst University) had an undergraduate applied forensic science program and a master of science degree in forensic and biological anthropology. Program director Dr. Dennis C. Dirkmaat was keen to add Steve's skeletal trauma expertise to this burgeoning program. Steve credits Dr. Dirkmaat as setting the standard in forensic anthropology and creating a master's program that is "one of the best

in the world.” Of course, while teaching full time Steve continued to consult on forensic anthropology cases not just in the tristate area surrounding Erie but throughout the United States and abroad.

When asked about his transition to full-time teaching, Steve said: “I was so shy at the beginning of my career. One of the first classes I ever helped Bill Bass with was 250 students in a room. It was horrifying to me to come down those steps the first day and get in front of [the class]. I don’t stand in front of people if I can help it. And slowly over the years he had me lecturing in that room and I learned I could address anybody no matter how many people were in that room.” While at Mercyhurst, Steve would mentor approximately one hundred graduate students and countless undergraduates. In addition, he also became an Extraordinary Professor of Physical Anthropology in the Department of Anatomy at the University of Pretoria, South Africa.

Of course, before becoming a full-time professor Steve had been lecturing for various continuing education programs since 1988. These audiences were highly variable, including anthropology graduate students, forensic anthropology practitioners, law enforcement, medicolegal death investigators, and forensic pathologists not just in the United States but also Canada, Central and South America (Fig. 5), Indonesia, Europe, Kosovo, and South Africa, to name a few. Despite his frequent travel, Steve has never experienced jetlag, and no matter the time of night he may arrive somewhere, he will be up and ready to go in the morning. Steve, being known for his hands-on teaching, always traveled with his red carry-on suitcase filled with human bone teaching specimens. It was in these temporary teaching situations that many of this friends, colleagues, and graduate students first met him. Even though Steve is a generally shy person, he is always up for a conversation and to learn from others, just as much as he may be teaching them.

While many think of trauma analysis as synonymous with the name Steve Symes, he is also a champion of the importance of quality photography in the field and the laboratory, as well as a staunch advocate for the use of microscopes in trauma analysis. His dedication to photography came from his time spent as Dr. Bass’s assistant and serving as a photographer while at forensic scenes. Steve believes that nearly every paragraph of a report should have a picture associated with it. “Photography is just part of the business,” he says, it is “the basis of what we do. It’s so much easier to show a jury what you’re thinking . . . [if you] get up in front with a picture and point to things than to describe a toolmark to the general public.” It was in Memphis that Steve began to use a microscope to look at fracture surfaces and tool marks. This became an essential part of his approach to trauma: “I spent most of my life looking through that damn thing.”

We asked Steve what lessons he might want to pass on to future generations of forensic anthropologists. Steve said:



FIG. 5—Steve holds a cranium while lecturing in Chile, 2005. Courtesy of Dennis C. Dirkmaat.



FIG. 6—Steve says it’s always nice to end the day with a sunset. Here is Steve with a former student, Dr. Jennifer Vollner, in Erie, Pennsylvania, in 2015.

“Because we’re a TV culture, we think that by watching TV we do forensics to solve a crime and convict someone of a crime. But that’s actually not what we’re doing. What we’re doing is finding facts and proving those facts. A conviction isn’t important [to being a good forensic scientist]. We gotta

get away from trying to convict the bad guys; we gotta discover what bad guys did; and do it accurately.”

Steve was full-time faculty at Mercyhurst University from 2003 until 2016, when he was offered early retirement and became professor emeritus. But of course, Steve cannot simply retire. He immediately transitioned from teaching at Mercyhurst to his current position as a forensic anthropologist at the Mississippi Medical Examiner’s Office. This move was largely to support then Mississippi chief medical examiner Dr. Mark M. LeVaughn, a longtime friend whom Steve first met while working in Memphis.

Throughout his career, Steve has received a number of accolades and recognition for his trailblazing work in skeletal trauma analysis. He has been an author on nearly sixty abstracts to the American Academy of Forensic Sciences (AAFS), and a number of his publications on skeletal trauma are considered to be foundational works to how forensic anthropology operates today. Steve has been a primary investigator on two large grants from the National Institute of Justice: *Knife and Saw Toolmark Analysis in Bone: A Manual Designed for the Examination of Criminal Mutilation and Dismemberment* (Symes et al. 2010) and *Recovery and Interpretation of Burned Human Remains* (Symes et al. 2012). In 2008, Steve was awarded the T. Dale Stewart Award, which acts as a lifetime achievement award in forensic anthropology, the highest honor offered by the Anthropology Section of the AAFS. But it may be Steve’s combination of teaching—first as a teaching assistant at UT Knoxville, then for continuing education courses, and later as a professor—and his applied work—first analyzing bioarchaeological remains in South Dakota, then consulting on forensic anthropology casework with Dr. Bass, followed by his position in Memphis, and later consulting on casework while in Erie—that is his greatest legacy in forensic anthropology. He was able to bridge the gap between applied practice and academic scholarship in the area of bone modification, and he taught students at all levels and backgrounds to think critically and logically about the nature of bone modification and to understand bone trauma and taphonomic alterations.

Those who know Steve well are familiar with his love of cats and plants (particularly orchids), and of course his affinity for Elvis and pink flamingos. Steve currently has two cats, Rex and Elsie, that he rescued after his beloved cat Missy passed away in 2020. Those who spent a lot of time with Steve in Erie may recall his efforts to maintain his plants year-round, planting them in his yard in the spring and then transplanting them into pots in the fall to bring them inside during the long Erie winters.

Steve is a competitive doubles sand volleyball player. He could often be found on the sand courts of Presque Isle in Erie summers rivaling players half his age. Volleyball is so important to him that he included his volleyball friends in both his master’s and his doctoral acknowledgments (Symes 1983). Steve is also an avid cyclist. While in Erie, Steve was known to bike to and from work, with his bike a stable fixture in his office.

Steve often has some cut of meat going all night in his smoker, and those who have attended barbecues at Steve’s are familiar with his multiple coolers of drinks (primarily filled with quality beer and Diet Coke) as well as late calls to eat, often after dark on late summer nights. Additionally, those who have been to one of Steve’s barbecues or visited his office late at night know that Steve has a great passion for music. But it might surprise some to learn that he had six years of piano lessons and played the slide trombone throughout school. “I was in the pep band—the trombone section—it was a really good trombone section . . . and we just kicked ass.” He notes that it was one of the only things that could keep his attention, but it turned out that he’d rather be listening than playing. Steve also made room in his dissertation acknowledgments for multiple musicians whose music inspired him and were personal acquaintances.

Finally, as Steve’s students, we would be remiss if we did not mention his thoughtful and generous nature. Not only has Steve gone out of his way to surprise many of his former students with small tokens of his appreciation, but these are gifts that are always personally meaningful. This is reflective of Steve’s quality as a mentor—he is thoughtful, observant, and invested.

Steve suffered a stroke in March 2020 (just as the Covid-19 pandemic was beginning to shut down parts of the United States), and as of this writing (February 2021) is still recuperating. “It’s amazing to see how a life-altering event like that can change your career,” he said. “Although, I don’t really feel like I’ve changed anything; and I won’t if I can help it; [but] any affliction of the brain is not a good thing if you’re an academic.” Initially after the stroke he lost most use of his left side and had memory issues among other complications. While Steve is now up and walking on the road to recovery, these complications have largely prevented him from working. Steve has always been a workaholic, never taking vacations and often working long hours. At Mercyhurst, for example, it was typical for Steve to be in his office and teaching classes from 9 a.m. to 5 p.m., leave for a few hours only to return to his office after 10 p.m. and work until the early morning. Not to be deterred, Steve is eager to return to the office and get back to his casework: “It’s strange for me to sit around. I need to get going again” (Fig. 6).

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as untraditional as it might be to thank a coauthor, we'd like to thank Steve for being an inspiring mentor, tremendous scholar, and true friend.

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