



American Society of
Anesthesiologists™

Central Line

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(SOUNDBITE OF MUSIC)

VOICE OVER:

Welcome to ASA's Central Line, the official podcast series of the American Society of Anesthesiologists, edited by Dr. Adam Striker.

DR. ADAM STRIKER:

Welcome back to Central Line. I'm Dr. Adam Striker, your editor and host. Today I'm here with the anesthesia historian, practicing anesthesiologist, and president of the Wood Library-Museum of Anesthesiology Board of Trustees, Dr. William McNiece. Today we're going to talk a little bit about our past and how it shapes our future and get into some interesting stories. So, Dr. McNiece, welcome to the show.

DR. WILLIAM McNIECE:

Thanks so much. I'm delighted to join you today.

DR. STRIKER:

Well, I'm excited to talk about this topic. We once talked about history of anesthesia, which was one of our favorite episodes. And so it's great to revisit the subject, specifically focused on the Wood Library Museum.

But before we get into that, I just want to talk about you a little bit. You've had a fascinating career weaving history and anesthesia together. Do you mind telling our listeners a little bit about yourself and where you got your fascination with the past and specifically the history of anesthesiology?

DR. McNIECE:

Sure. So I guess my interest in museums and history, in fact, predates my interest in medicine and anesthesia. So in my early years, thinking back, this would have been a high school, college, medical school, I work for about ten years at a museum. So that clearly has influenced my interest in museums and what you can learn at a museum,

what museums can teach us. I went from there to undergraduate school in mathematics and engineering, ended up in medical school onto an anesthesiology residency. And I've been a practicing pediatric anesthesiologist my entire career.

I knew of the Wood Library and at some point decided to go visit. I was impressed. I got involved and I've stayed involved ever since.

DR. STRIKER:

Well, before we talk about the museum specifically, let's just circle back to the history of anesthesia. The use of anesthesia has been called America's first major discovery. Talk a little bit about how anesthesia was discovered and how it's shaped American health care over time.

DR. McNIECE:

Sure, it's an interesting topic and it is a topic that you can get a variety of opinion on. But we can talk about a few key milestones.

So one of those would be October the 16th of 1846. Now that's the date of the first successful public demonstration of ether. And I phrase that carefully. William TG Morton, who was a dentist, delivered an ether anesthetic to a patient undergoing a surgical procedure in the amphitheater of the Massachusetts General Hospital.

About a month later, November the 18th, Henry Jacob Bigelow publishes an article in the Boston Medical and Surgical Journal describing that demonstration. That journal eventually becomes the New England Journal of Medicine. So an important feature here is this was a public demonstration, and that information about that demonstration quickly gets out into publication and available broadly. So that's 1846.

We can go back to 1845. Horace Wells in Connecticut successfully uses nitrous oxide for some dental work, but is not successful with it in a public demonstration for surgical anesthesia.

And then we can go back a little further to March 30th of 1842. That's when Crawford Long of Jefferson, Georgia, successfully administers Ether for the surgical removal of a tumor. But an important feature is he does not publish that work until it appears in the December 1849 issue of the Southern Medical Journal.

And so that's why there is some controversy on on who is first. So we can go back to October the 16th of 1846 as the first public demonstration of ether that reaches publication.

Now, after 1846, the use of ether and anesthesia really goes worldwide and multiple continents across the globe. I think we need to consider that surgery really couldn't advance without the availability of anesthesia. You were very limited in what you can do and it has to be done very quickly. So with anesthesia, that allows surgery to an advance and then as surgery advances, anesthesia and anesthesiology need to advance and that allows surgery to advance more. And it goes on from there today and into the future. If you have more interest in this then I suggest, you go to the WLM website, that's Wood Library Museum dot org and click on the Learn More button. And if you do that, that will take you to the WLM's interactive timeline on the history of anesthesia. You can go back 400 BCE or something like that as the first point on the timeline, many more throughout. And so that can give you a sense of where we've been and how we've made progress over time by just clicking on what interests you on that timeline.

DR. STRIKER:

There's a lot of good information on that site. I mean, it's not only a timeline. If I'm not mistaken, you can click on any number of topics or individuals involved in the history of anesthesia and learn more about them. Is that not true?

DR. McNIECE:

That's correct. We can talk a little bit more about that later, but there's a vast amount of information there and it's growing all the time.

DR. STRIKER:

I think most of our listeners are probably going to understand the value of understanding our history, but I still think it's important to articulate the answer. So I'm going to ask the question anyway. Why does it benefit anesthesiologists to understand the history of the specialty? And if you're a working anesthesiologists now, should it matter? And why does it matter?

DR. McNIECE:

Well, I'll offer my perspective, recognizing that I may be a little bit biased. The mission of the WLM is to advance anesthesiology by preserving and sharing its heritage and

knowledge. So that gives you a sense of where the WLM comes from. Now, as a practicing anesthesiologist, how is this important? Well, I think it's important that you know where you came from in order to help understand where you've been and where you want to be. It helps us understand the challenges that we needed to overcome to advance the specialty. And that helps us, I think, understand better possible paths forward as we recognize it is important that we continue to advance the specialty so we know where we are, but remembering where we've come from reminds us how important it is to keep progressing.

DR. STRIKER:

Well, the Wood Library Museum if those of our listeners who don't know is housed at the ASA's headquarters in Schaumburg, just outside Chicago, and is named after Paul Meyer Wood. Tell us a little bit about who Dr. Wood was and the story on how that name got attached to the museum.

DR. McNIECE:

Sure. So Paul Meyer Wood is an Indiana native. I'm from Indiana, so I'll make that point. He's born in Frankfort, Indiana. That's 50 miles or so north and little west of Indianapolis. He graduates from high school in Indiana. He goes to New York after high school. He graduates from Columbia University. He goes on to Columbia University School of Medicine. His medical school is interrupted by service, and World War One comes back, finishes medical school and within a two year period as a house officer arranges multiple months of anesthesia, so clearly interested in it. And as he finishes up those House officer years, he immediately begins an anesthesia focused practice in New York City.

He was also interested in organized medicine and objects and documents related to anesthesiology. So reportedly a typical day for him was to get up. He would work with a limited number of surgeons, and their day was to start administering anesthesia, and he would work from 5 a.m. to 11 a.m.. That was his clinical work day. He would then leave the hospital. He would do some office work, usually on organized anesthesia in some form. Later on the afternoon, he would return to the hospital. He would see patients maybe provide an anesthetic for an emergency. And then of the of the evening, he would go on to attend medical meetings or do more office work. So a very hard working individual.

He was also a collector and he collected lots of things: apparatus, books, manuscripts, records. And around 1930, he developed the idea of an anesthesiology library museum. And his collections that he had developed over time then became the Origin of the

WLM. And then probably around 1950, the entity that Dr. Wood began and then which became the WLM, formally takes the name Wood Library Museum of Anesthesiology. The WLM moved around to a number of locations in its initial years. And then in 1963, co-locates with the American Society of Anesthesiologists headquarters buildings, as is it has moved from time to time.

Also make note that Paulin M. Wood is the first recipient of the ASA's Distinguished Service Award that was made in 1945, an important individual.

DR. STRIKER:

Certainly it's a fascinating story. And for our listeners, if you haven't had the opportunity to visit the museum in person, it's it's well worth the visit if you happen to be going to the ASA or near or in the area. It's really an impressive collection. And let's talk a little bit about the collection. Do you mind just telling our listeners what they could expect if they were to visit and what is in the collection that they may not see?

DR. McNIECE:

Sure, happy to do that. So we speak of the Wood Library-Museum of Anesthesiology, and that's that is the name of the place. In fact, it might be better described as the Wood library, museum archives, rare books and video collections of anesthesiology, because we do have greater range of objects and items in the collections than you might think of just as library and museum.

The first time I went to the WLM was probably 20 years ago. I knew of it. I wondered. It was in the Chicago area and I decided to go visit. And I spent some time with the late Patrick Simm, then librarian, who showed me around. And one thing that I remember from that is his description of the LWM as being both narrow and deep. And by that he meant it is narrow because the only thing that it collects and has in its holdings are things related to anesthesia and anesthesiology. If it's something having to do with pediatrics or orthopedic surgery or internal medicine, the WLM is not the place to look for it because it's very focused narrowly on anesthesia and anesthesiology. But it's also very deep. So within that realm of anesthesia and anesthesiology, it collects widely, it collects into the centuries past, it collects a wide range of things, but all related to anesthesia and anesthesiology. So that's why I have often thought that his description of the WLM as being both narrow and deep is a very apt description.

So let me give you a couple of examples. I remember once I was trying to understand the introduction of a new piece of equipment, new when it was introduced into clinical practice. And I was trying to figure out kind of when that was promoted to

anesthesiologist. And I asked about that and I was directed to the collection of bound anesthesia journals there. And an interesting feature that I found is that in contrast to where you would go online to look for the reprints of articles and that sort of thing, what the WLM has is not just those bound issues, but bound issues with all of the advertisements bound within them. So where as online, all of that information from the advertisements are discarded, it was there in those bound copies and that gave me a good understanding of when this product that I was interested in was actually being promoted to the anesthesiology community.

Another thing that I'll point out is that the WLM collects multiple editions of a textbook, so you can see how understanding might have evolved over a period of time as a textbook goes from one edition to another edition to another edition.

If you are there in Schaumburg and visiting the ASA headquarters, I agree with you. I think there's some fascinating exhibits there. Certainly the early inhalers, I think are just a fascinating collection, both visually and to understand how the administration of in that case, ether and chloroform, evolved early on.

Now, as important as what you do see is what you don't see. So like most museums, only a very small percentage of the collections are actually on exhibit. The remainder are held in collection spaces and are available for future study and future exhibits. So what you would see there at the WLM exhibits within the assay headquarters building, while fascinating and I think well worth a visit, represents really only a very small percentage of the WLM holdings.

DR. STRIKER:

Well, I want to talk a little bit more about the collection and even what a gorilla has to do with it. So please stick with us through this short patient safety break.

(SOUNDBITE OF MUSIC)

DR. JEFF GREEN

Hi, this is Dr. Jeff Geen with the ASA Patient Safety Editorial Board.

We can learn from errors, near misses, and adverse events by using formal analysis of the unreliable systems that played a role in a given scenario. Through error analysis we can investigate errors, identify and address their causes, and prevent future occurrences of similar events. Root Cause analysis, a detailed retrospective review of an event by a multidisciplinary team using tools such as the "5 whys" and the Ishikawa

or fishbone diagram to identify and repair the underlying or root causes of errors. Failure mode effect analysis is a prospective process using subject matter experts to identify weakness in a process where system failure could occur by measuring the frequency, severity, and detectability of failure points. The discipline of human factors engineering can assist in the development of safety systems that prevent inevitable human errors from reaching a patient and causing harm.

It's a worthy endeavor for health care to adopt the goal of achieving zero events of preventable harm.

VOICE OVER: For more information on patient safety visit asahq.org/patientsafety22

DR. STRIKER:

Dr. McNiece, I have to ask, the website has a page highlighting famous patients, including Queen Victoria, Grover Cleveland, but also a gorilla named Jenny. How did the gorilla make the cut? Tell us a little bit about that, if you don't mind.

DR. McNIECE:

Happy to do it. And I will agree that that's kind of pique your interest a little bit. So as we talk about Jenny, let's start by talking about Adolph Key Junior. Dr. Gieseke, he always went by Buddy made many contributions to anesthesia and anesthesiology, including service as a trustee of the WLM from 1992 to 2000. He was practicing anesthesiology at Parkland Hospital in Dallas, Texas, on November the 22nd, 1963, and was present for a portion of President Kennedy's surgery and then later administered the anesthetic to Governor Connally. So that's 1963. About two years later, he gets a call from the veterinarian at the Dallas Zoo. And the veterinarian was concerned that Jenny, an 11 year old gorilla, had a bowel obstruction. She just wasn't doing well. Could Dr. Giseksi help by anesthetizing Jenny for some diagnostic work and a possible laparotomy? And so, with some trepidation, Dr. Giseksi proceeds to do just that. And it recorded that experience, including comments on how they thought through and address the many challenges the anesthetic presented. And ultimately, Jenny did well. She lived to the ripe old guerrilla age of 55 years. And you can listen to Dr. Gieseke's recording about the anesthetic by searching Jenny on the WLM website. I think it's a fascinating description of the challenges that he was presented by this unusual patient.

DR. STRIKER:

I'm sure it is. I look forward to hearing that. But it's also indicative, I think, of probably how much we could get lost in looking through and listening to those archives as well.

We've talked a little bit about the history and the museum itself. How is it contributing to the specialty today? In other words, if students or residents or trainees or junior attending, anyone, wants to look to the museum for resources, what does it offer?

DR. McNIECE:

So we view the WLM as providing resources, certainly for all anesthesiologists, but indeed for anyone interested in an anesthesia and anesthesiology. And if that happens to be a high school student doing a project and wants to learn more, terrific. Come look at the website. If you live in the United States, that's great. But if you live anywhere on the globe and you have access through the web, we welcome you. And in fact, we see many visitors from outside the United States. We have some programs in the greater Chicago area that will take an occasion to have a residency class come and make a road trip to the Elm. We're delighted to to welcome those visits. There's a tremendous and a growing amount of information that's available online.

If you're an individual who has a specific interest related to anesthesiology history, then I'll note that the WLM offers annual fellowships. So we invite those individuals to to submit an application. Those are due, it says online, I think it's February 1st, talking about what you would like to research. And if you are the recipient of a fellowship, then we will pay your way to come to the WLM. We'll pay your hotel bill, your provide you a stipend, and provide you librarian and archivist support to research that area of interest. We do ask that you proceed to prepare a write up about this. Hopefully it's something that will proceed on to publication and once we receive all that, then there's also a stipend that goes along with it. So we are delighted to welcome and invite individuals who are interested in some aspect of anesthesia anesthesiology to spend some time with the WLM to try and pursue that, that interest.

And certainly we welcome anyone visiting the headquarters to add a little time to your day if you've got it available and wander around the exhibits there at the ASA headquarters. We think it's well worth your time. And it's sounds to me, Dr. Striker, like you've spent a little time there looking at those exhibits.

DR. STRIKER:

I have, yes. It is fascinating. Well, what I'm going to put you a little bit on the spot here. If you had to pick a piece of history that you've learned through all this that you found particularly interesting, and I know that's trying to choose from lot, but something unique that you may think that many of our listeners don't know about.

DR. McNIECE:

Well, I guess I will talk about something that may seem kind of small, but yet is kind of important. And that would be how anesthesiologists and the anesthesia technology has evolved over time to measure gas flows. So all of us administer anesthesia to patients using inhaled anesthetics and a blend of gases. So to do that, we have to be able to measure the gas that's flowing into our circuits and then being delivered to the patient. So how has that been done? How has that evolved? And as I've looked into that, I think that the evolution of technology, looking at how fast bubbles of gas flowed through a water filled or ether filled container to another approach that looked at gas flowing down through tubes with holes in it into another liquid filled container and seeing where the bubbles started coming out to various technologies of bobbins and balls floating on a column of flowing gases to technology that measures temperature and pressure changes across systems. So I think these are things that I have found fascinating, just to see how the technology has changed over time to help us more accurately and safely administer anesthetics to patients.

DR. STRIKER:

Well in certainly learning all that makes us all appreciate what we take for granted, probably on a daily basis with what we have available to us now.

DR. McNIECE:

Yep.

DR. STRIKER:

Ether day is scheduled for Sunday, October 16th this year. Do you mind just talking a little bit about the history of Ether Day and how it came about? Sure.

DR. McNIECE:

So earlier we talked about the first public demonstration of ether anesthesia on on October the 16th of 1846. So October the 16th, that's where ether day comes from. And that's what Ether Day commemorates. Now, the celebration formally goes back at least as far as October the 16th of 1896. That was the 50th anniversary of the first public demonstration of ether. So that makes last year, 2021, the 175th anniversary of the first public demonstration of ether. So that's where that comes from.

Now, let me also, if I may mention, Doctors Day. So that's a little different. It's celebrated on March the 30th of each year here in the United States. That's a celebration that recognizes all physicians, not just anesthesiologists. Now a national event, Doctors Day traces its origins to Georgia in 1933 and an initiative there to recognize physicians. The date selected by those Georgia individuals who first came up with the initiative of Doctors Day was March 30th, and that was picked because that was the day that Crawford Long first administered an anesthetic. So there are anesthetic ties to both the date for Ether Day and the date for doctor's day here in the United States.

DR. STRIKER:

So typically now how is Doctor's Day scheduled?

DR. McNIECE:

So Doctors Day is March 30th. That's in every year date and it continues on. Its origins come from that initial initiative to establish Doctors Day in Georgia. But it is now spread throughout the country as a recognized day of recognition and celebration.

DR. STRIKER:

Before I let you go, where can listeners find out more about the Wood Library Museum? You mentioned the website earlier, but how else can they support the museum and any other information that you'd like to get out to our listeners about this?

DR. McNIECE:

Well, I'll start by mentioning the website again -- woodlibrarymuseum.org. Go there, visit, spend some time, wander around. A virtual museum is in some ways like a physical museum. You can kind of wander around, go this way and that way, spend some time in what interests you and learn about things that maybe you didn't know were there at all. I think the timeline is very well visited. I think that's interesting and you can learn lots there. There's also substantial virtual exhibits.

I'll mentioned a few other things. There's the John Pinder Living History collection. That's a collection of typically 30 to 60 minute interviews of senior anesthesiologists. Some of those are still living. Many of them have passed, but they are formal interviews to probe with those individuals aspects of anesthesia and anesthesiology that have been a part of their careers. There are a number of YouTube videos. These are shorter. They last two or three minutes. They're on a wide range of topics. And you can kind of

again, wander around and look at this topic or that topic. We have social media activity. Follow us. You'll get some some contact from us. We invite you to become a friend of the WLM that invites you to an annual tea at the ASA annual meeting. Those of you, and I hope that's all of us that look at Anesthesiology, the journalism. Each month we'll see anesthesiology reflections from the BLM. This is a continuing series of, oh, usually less than one page historical vignettes that continue to appear in the journal, originally prepared by George Boese and now by Jane Moon and Melissa Coleman. These short vignettes address a whole wide range of topics. I think they're always of interest to spend a few minutes learning about something new and unexpected there.

I mentioned earlier the Wood Library Museum Fellowship. I invite you to have a look at that if you want to spend some time doing some some research and writing. Submit an application. We review those and we then offer fellowships. No specific number. It depends on the applications that we get and then we invite people to come and do that.

We, of course, and invite and welcome financial contributions if you're looking to support us. You can do that annually. You can do that on a one time basis. Certainly those of us who are well into our careers, we invite you to to think of that as a as a career gift, as a legacy gift that you might want to make. So there's all sorts of options there. We're delighted to use those resources to help advance the mission of the WLM.

And then if you have something that you think we should consider for the collections - artefacts, archives, books in the way of maybe a signed book or a rare book, please contact us. Matthew Toland, the director, is easily reachable and others at the WLM. So let us know what you may have, what you're interested, and we'd be happy to talk with you about that to see if it fits with the collections or not.

DR. STRIKER:

Well, Dr. McNiece, thank you so much for sharing your insight and your knowledge about the Wood Library Museum. Get online and check out some of these resources that the Wood Library Museum has to offer. And it's always fascinating to talk about history of the specialty. It's interesting. It's relevant. And so thank you for joining us.

DR. McNIECE:

I've been delighted to join you and all of our listeners here today. Certainly, I'll echo all that you've said and invite and welcome all of our listeners and others they may encounter to visit the WLM either in person or virtually as they have time to do that.

DR. STRIKER:

And thanks to all our listeners for joining us on this episode of Central Line. If you like it, if you've enjoyed listening to this episode, check out some other episodes that we've had on a variety of other topics related to the field of anesthesiology. Tell a friend, leave us a review. This all helps and we appreciate it. Till next time, take care.

(SOUNDBITE OF MUSIC)

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