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- Urologist on the Western Front: the diary of G G Smith
- Is the thoraco-abdominal incision destined for oblivion?
- Contract surgeons in the Civil War
- Turning ‘rust’ into ‘gold’: the Retrospectroscope Award

PRAETERITUM DOCET

‘The past teaches’

On the Cover



The city of Tournai, Belgium was at one time the origin of some of the world's finest tapestries, gracing the homes and castles of European nobility for 500 years. One particular set of tapestries depicted four major scenes in the life of Hercules and may have been produced between 1513-1522.(1) The pieces, which were later acquired by Daniel Guggenheim, are extraordinary examples of the exquisite detail, technological advances, and artisanship that so characterized the Renaissance period. In the 4th scene, shown on our cover, the so called "Death of Hercules", the hero has chosen to be burned alive on a funeral pyre after having been, according to Ovid, poisoned by

his apparently jealous wife, Deianira. The tapestry's creator chose to depict Hercules in contemporary 16th century clothing and hairstyle, not the more hirsute image of a typical Greek demi-god, and became known as the 'shaven Hercules'. His clothing includes a loosely worn shirt, tight fitting pants, and a stuffed codpiece. The codpiece was popular in the 1300-1400s but had become somewhat ridiculed by the Elizabethan era. The tapestries may well have come to the attention of a Mr. William Shakespeare who appears to mention them in the 1598/9 comedy *Much Ado About Nothing*. The play's comic sage, Borachio, laments on the use on codpieces saying: "...what a deformed thief this fasion is?...like the shaven Hercules in the smirched worm-eaten tapestry." In this issue of the *Journal*, Ellis et al. explore the history of the codpiece, from medieval times to Gene Simmons and *haute couture*.(2) The four tapestries were given by Mrs. Guggenheim to the Metropolitan Museum of Art in 1935. The Shakespeare Fellowship president wrote that "if Shakespeare ever saw (the tapestry), or a replica of it, very probably it would have been smirched and worm-eaten by that time".(3) Whether these were the actual tapestries or copies that inspired Shakespeare may never be proven.

1. Cavallo AS. Medieval Tapestries in The Metropolitan Museum of Art. New York: The Metropolitan Museum of Art, 1993. pp 560–73.

2. Ellis E, Suson KD, Preece J, Rabinowitz R. A knight's thrust: Was the use of a codpiece for protection or for exertion of masculinity? An evaluation through history and its reemergence in modern times. *Int J Urol History* 2024; 3:20-26.doi.org/10.53101/IJUH.3.1.092405

3. The Shakespeare Fellowship Newsletter: "Shakespeare and the Shaven Hercules", March, 1946, p1. London: Baires & Scarsbrook.

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Foreward



Samuel Pepys (1633-1703) was a mid-level naval administrator during the reigns of Charles II and James II but he is far better known for keeping an invaluable diary that chronicled personal, public, and political details of life in mid-17th century England. Pepys provides an eyewitness accounting of major events like the Great Plague of London (and the Great Fire of 1666 that ended it), but also the minutiae like his urolithiasis. "My pain (had) begun to abate and grow less and less" he wrote in early 1664. "Anon I went to make water, not dreaming of any thing but my testicle that by some accident I might have bruised as I used to do, but in pissing there come from me two stones."(1) By the following July he had consulted a Dr. Burnett who prescribed a concoction of marshmallow of Cumfry, St John's Wort, leaves of plantain, cinnamon, nutmeg, and red roses. By 1666, Pepys' lower urinary tract symptoms had normalized. "Strange with what freedom and quantity I pissed this night, which I know not what to impute to but my oysters."(2) Oysters, nutmeg, or roses notwithstanding, we learn what was most probably contemporary medical thinking and a folklorish approach to diseases that had no scientific basis.

Three hundred years later, the unpublished diary of the British surgeon and polymath Sir Henry Thompson (1820-1904), provides a humbling first-hand account of 19th century urologic surgery. In 1873, Thompson was called upon to remove a bladder stone from a stricken Napoleon III (1808-1873) via lithotrity, a procedure of which Thompson had already become an international authority. Sir Henry provides us with his observations and inner thoughts of the experience in seeing the famous patient, learning of their anxieties and hopes, and the Emperor's resignation to being a surgical patient. Ever the complete physician, Thompson even made a detailed sketch of the Emperor's room, persons in attendance, and the location of the makeshift on-call quarters.(3) We wince at the graphic nature of the operation performed, not so much because we might view the blind surgical approach as archaic and morbid, but because our initial hopes and optimism become

suddenly and irrevocably consumed by despair and dread as Napoleon succumbs to sepsis. The diary makes us wear Thompson's heavy cloak of failure.

Some historians have a problem not with what diaries contain but what they don't. Diaries, as Irina Paperno once wrote, are a privilege to read but are "condemned from exclusion from analysis".(4) In this issue of the IJUH, authors take on the challenge of using diaries. Herr and Chubak, both from New York, use diaries to place us on the front lines of urologic surgeons during the American Civil War and in early World War I, respectively.(5,6) Osinski et al. from Rochester accessed the journals of Rainer Engel (1933-2018), the tireless curator of the AUA's William P Didusch museum, the to reveal the creative processes that led to the 2005 creation of the Retrospectroscope Award for best paper of the annual AUA History Forum. Lastly, Donnenfeld et al. from Atlanta used the surgical 'diary' of MASH 8055th, stationed in Korea from 1952-53, to experience the first successful results of the thoraco-abdominal incision in the management of chest and abdominal trauma. Diaries are an excellent example of primary source material, often unpublished, that provide ample grounds for urologic and medical exploration, especially in the context of secondary data that describes the contemporary world around the writer.

REFERENCES

1. Pepys S. The diary of Samuel Pepys. Ed Wheatley HB, London: George Bell & Sons, 1893, March 7, 1664.
2. Ibid. September 18, 1666.
3. Thompson, H. Diary, January 1-6, 1873. Royal College of Surgeons. London.
4. Paperno I. What Can Be Done with Diaries? *Russian Rev* 2004; 63:561-573.
5. Herr H. *Int J. Urol. His* 2024; 3(2): 36-44. doi.org/10.53101/IJUH.3.1.092407
6. Chubak B. *Int J. Urol. His* 2024; 3(2):27-35. doi.org/10.53101/IJUH.3.1.092406
7. Osinski T, Rabinowitz R. *Int J. Urol. His* 2024; 3(2):50-56. doi.org/10.53101/IJUH.3.1.092409
8. Donnenfeld SR, Filson CP, Daneshmand S, Master VA. *Int J. Urol. His* 2024; 3(2):45-49. doi.org/10.53101/IJUH.3.1.092408

A Knight's Thrust: Was the Use of a Codpiece for Protection or for Exertion of Masculinity? An Evaluation through History and its Reemergence in Modern Times

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Introduction: Medieval military history is marked by an evolution of armor design and protection that was driven by advances in weaponry. The codpiece was a 14th century innovation to provide a genital shield in battle but was used in civilian life as well. Our objective was to clarify whether the codpiece served as an essential component of a knight's safe keeping or as a mere outward display of virility.

Sources and Methods: A comprehensive literature search was performed using PubMed and Google Scholar. Primary historical texts, museum archives, scholarly works, popular media, documentaries, and artwork were reviewed.

Results: The armor used in the early Middle Ages was chain mail, which covered the neck, trunk, and upper arms and legs but failed to protect against blunt injury to the groin as weaponry became increasingly powerful. Full plate armor, developed by the 1300s, eventually included the codpiece, a small metal pouch to house the genitalia. In the late 1400s, however, codpieces appeared in civilian wear, modestly laced to men's stockings as upper body shirts and tunics became shorter. Codpieces quickly became more ostentatious and bulkier in an 'Arms Race' of masculinity, were soon ridiculed in contemporary satires including works by Shakespeare and Rabelais and inspired royal edicts limiting their use. However, the codpiece was used in the management of genital disease as well, as the bulky wraps and ointments used to treat endemic syphilis were thus more easily concealed. The codpiece fell out of fashion by the late 16th century but its descendants, in sports and the performing arts, still have practical use today in genital protection and in men's haute couture clothing design.

Conclusions: In the medieval battlefield, the codpiece was both protective and assertive of masculinity. Its military popularity eventually waned as armored battle proved no match for more modern weaponry, but the codpiece had a long influence on sartorial culture. The codpiece's modern descendant, the athletic 'cup', has therefore a long and most unusual history in the pages of war and Renaissance clothing.

Keywords: Codpiece, armor, medieval history



Medieval military history is marked by an evolution of protective armor design required by advances in weaponry.(1,2) Displays of full body 'knights in shining armor' at many military museums will include a metallic genital covering or cup called a 'codpiece'. Designers throughout Europe included the codpiece in the full suit as early as the 14th century for the equestrian knight although the codpiece became adopted by civilian tailors as well. The use of the codpiece in military and civilian life thus presented a 'double role' of both practical and fashionable use. Though lauded by royalty and commoner alike, the

codpiece was also the subject of medieval legal action and of ridicule in popular contemporary literature. After the 1570s, the codpiece was no longer included in military design manuals, and the decline in its civilian use followed, only to be revived in the 20th century. We investigated what roles were served by the codpiece, and whether the codpiece was an important aspect of genital protection or merely an outward display designed to promote images of virility.

SOURCES AND METHODS

A comprehensive literature search was performed, and historical texts, documentaries, and artwork were reviewed. The Musée de l'Armée Invalides (Paris, France) was accessed to examine historical suits of armor and their codpieces. Original artwork was obtained from the archives of the Metropolitan Museum of Art (New York) and the National Library of Paris (gallica.bnf.fr) including the Gustave de Ridder collection of military uniforms and the François-Roger de Gaignières collection of medieval fashions.

RESULTS

The codpiece

The 230-foot-long 11th century Bayeux Tapestry reveals, in painstaking embroidery and needlework, the precise details of the peoples, locations, and weaponry involved in the Battle of Hastings of 1066. The work reveals exquisite details of medieval life including clothing across the strata of contemporary society. Soldiers are shown wearing chain mail, a mesh-like weave of small metal rings, worn as an overgarment that offered real protection from low velocity weapons including swords, clubs, spears, and maces. Chain mail initially covered the trunk, upper arms and upper legs, and evolved to cover the hands and neck as well.(2) The development of the long bow, the crossbow, and high velocity piercing weaponry led to the development of full plate armor by the 15th century (Figure 1). Some features of plate armor, such as raised shoulder pads, were used for protection, while other features had origins in civilian fashion, such as square-toed shoes (Figures 1 and 2A). At some point, plate armor also included a 'cod' (Mid. Eng, "bag") of metal later known as a 'codpiece' that became increasingly popular throughout the Continent.(3) Known in Italy as a 'sacco', in German as a 'Hosenbeutel', and in French as a 'braguette', the codpiece became an essential method to protect the exposed genitals as the tunic of the 1360s barely reached the thigh.(3)

Medieval civilian use

The use of the codpiece in civilian attire became rather common, but the degree of its conservative or more ostentatious display was up to the discretion of the wearer. The misuse of the codpiece apparently irked the upper classes, so much so that England's King Edward IV (1442-1483) passed a law forbidding anyone below the rank of lord to expose their private "sinful" parts.(3) The decree was apparently unpopular because



Figure 1. Foot jousting armor, 15th century, full body. Details include articulation at every joint, lines and seams to mimic fabric, and the codpiece. (Author's collection, Musée d'Armée, Paris)

it required men to sew their tunic to their pants, rendering it difficult to access the penis for urination or other activities. Geoffrey Chaucer (c1340s-1400) described these early codpieces in his late 14th century work, *The Canterbury Tales*:

"Alas, let us notice these short-cut smocks or jackets, which, because of their shortness, cover not the shameful members of man, to the wicked calling of them to attention. Some of them show the very boss of the privy member and the horrible pushed out testicles that look like the malady of a hernia in the wrapping of their hose..." (4)

Eventually three-cornered fabric codpieces were tied over the front of the hose. In the Middle Ages, this was unobtrusive, but it became a fashion accessory in the era of the Tudors (1485-1603).(3) Codpieces were a prominent feature of a man's wardrobe of all age groups from the 1540s to 1590s. The Tudor period codpiece was designed to emphasize rather than conceal.(3) Codpieces were shaped and padded upright or outward protruding. The rigid structure was achieved by stuffing fabric with straw or horsehair and was molded into harder shapes by using buckram or leather.(5) The



Figure 2A. (Left) Armor of the Holy Roman Emperor Ferdinand I (1503–1564) by the German master, Kunz Lochner, complete with virgin mary breastplate, articulated gauntlets, and codpiece.(Metropolitan Museum of Art, New York)
Figure 2B. (Right) Copy of the original Hans Holbein the Younger portrait of Henry VIII (r. 1509-1547) made for the monarch after the birth of his son, Edward VI (1537-1553)(WikiCommons, Public Domain, Walker Art Gallery, Liverpool)

roomy space inside protected genitals from the swords, daggers, and purses that could be hung from a man's belt. Codpieces were highly decorated with ribbons and bows, and some held money and other valuables. The use of the codpiece as secret hiding places for valuable items gave rise to the phrase to 'keep safe the family jewels'.(3)

Codpieces became intrinsic to the late medieval male psyche and symbolic of male conquest, prowess, and dominance. Borachio, the somewhat clever drunkard in William Shakespeare's *Much Ado About Nothing*, also noted the somewhat crudely commonplace use of the codpiece.

"Seest thou not, I say, what a deformed thief this fashion is," he admits to his friend Conrade. "How giddily he turns about all the hot bloods between fourteen and five-and-thirty, sometimes fashioning

them like Pharaoh's soldiers in the reechy painting... sometimes like the shaven Hercules* in the smirched worm-eaten tapestry, where his codpiece seems as massy as his club?"(6)

Codpieces were theorized to conveniently offer both protection during a time of endemic syphilis as well as add a modicum of dignity. Syphilitic sores discharged a large quantity of malodorous matter. Animal grease and mercury were popularly applied as a paste to the affected areas which were wrapped in bulky bandages that gave the genital region a prominent frontal bulge.(3) Fashionable codpieces thus served as both a container for the ointments that would otherwise stain outer clothing and as a disguise for the copious bandages and applications.

*Editor's note: This may have been Shakespeare's reference to, as the British scholar Otto Kurz suggested in 1945, a 16th century tapestry from the great weaving powerhouse of Tournai, the Netherlands that depicted the death scene of the 'shaven Hercules'. "The dying hero...is beardless and dressed in 16th century costume, and answers to Shakespeare's description in every detail" codpiece and all.(7) (see cover art)



Figure 3a. (Left) The 1532 portrait of Holy Roman Emperor Charles V (1500-1558) by Jakob Seisenegger (1505-1567) with his English water dog and royal raiments including cloth codpiece (Vienna Art History Museum, Public Domain). **Fig. 3b** (Right) A contemporaneous 1535-1538 portrait of the the Seventh Count of San Secondo, Spain, Pier Maria Rossi di San Secondo (1504-1547) by GFM Mazzola (1503 –1540), also known as ‘Parmigianino’, depicting the wealthy noble in front of a golden damask tapestry and wearing resplendent fur coats, French cut pants, and a padded codpiece (Prado Museum, Madrid, Public Domain)

Renaissance use and the nobility

Many prominent men appeared in portraits that showcased their codpieces, including the Holy Roman Emperor Charles V (1500-1558), and his Count Pietro Maria Rossi (1504-1547) (Figures 3a and b, respectively). Codpieces became more ostentatious during the Tudor Era (1480s-1600s), increasing in size and ornamentation in an ‘Arms Race of Masculinity’. Men were known to sport the largest and most decorative codpieces to emphasize their masculinity if their virility were ever in question.⁽³⁾ Hans Holbein the Younger (c1497-1543) was commissioned to create the now-famous portrait of King Henry VIII (1491-1547) just after the birth of Henry’s only living son, Edward, in 1537. The original portrait, long destroyed in the Whitehall Palace fire of 1698, had many copies, so posterity can still appreciate Holbein’s depiction of Henry, with a majestic, somewhat aggressive posture, without crown, sword, or scepter, but with his prominent codpiece (Figure 2b).⁽⁵⁾ Henry’s apparent intent was to affirm his virility after Edward’s birth, should others question his fertility as the king.

Military Use

There are few reports in contemporary medical texts of genital injuries during battle, but some historians argue

the codpiece was both protective and assertive, given that martial strength was an integral part of masculinity at that time.⁽³⁾ Codpieces were a common addition to the best full harnesses of the fighting equestrian, although genitals may have been equally protected by flexible chain mail. The codpiece may have also created other difficulties in sitting astride a moving horse and is absent in the suit of armor Henry VIII himself wore during equestrian events. Contemporary renderings of military conflicts suggest a relatively low risk of genital injuries and that a codpiece had become an anticipated ornamental standard. ⁽¹⁾ The French Renaissance writer Francois Rabelais (c1480-1553) may have satirically ignored the military insignificance of the codpiece in his 16th century novels the *Histories of Gargantua and Pantagruel*. Rabelais cited the codpiece as the chief piece of the military harness. He depicted two characters, Pantagruel and Panurge, debating the value and vices of the codpiece as battle-worthy equipage. Panurge suggests that men’s genitals should be protected in battle just as the ‘seeds of all plants are well fortified by their husks or casings’ to perpetuate reproduction. He posited that Nature had given all things their own protective codpieces by “strengthening, covering, guarding, and fortifying them with... cases, (scarfs), and swads”.⁽⁸⁾ Nature had been unfair to man, per Rabelais’

Panurge, by creating men "naked, tender, and frail without... defensive arms". This necessitated man to "put on arms... If the ballocks be marred, the whole race of human kind would forthwith perish and be lost forever".(8) Rabelais tells of a certain Lord Humphrey de Merville who tried on a new suit of armor, "for of his old rusty harness he could make no more use, by reason that some few years since the skin of his belly was a great way removed from his kidneys". Merville's wife commented that he was covering all of his body against attack except for what she considered a "most precious ingredient" to their marriage. She offered to give him an old tilting helmet to "shield, fence, and 'gabionate'" his genitalia. Rabelais writes that "(on) this lady was penned these subsequent verses, which are extant in the third book of the '*Chiabrana des pucelles*':"

"When she saw her spouse equip'd for fight,
and save the codpiece all in armour dight,
My dear, she cried, why, pray, of all the rest
Is that exposed, you know I love the best?
Was she to blame for an ill-managed fear,
Or rather pious, conscionable care?
Wise lady she! In hurly-burly fight,

Can any tell where random blows may light?"(8)

The fading years

However popular the codpiece was, its use was short lived and largely receded by the time Queen Elizabeth I took the throne in 1558.(3) According to DH Breiding, the codpiece remained in use until 1570 but was no longer illustrated in continental military uniform atlases by the 17th century.(9,10) The codpiece remained, however, a practical and artistic presence (Figure 4). Peter Garland traced the declining use and acceptance of the codpiece from the 1700-1900s. The codpiece and stiff garments of the French court gave way to tighter fitting garments with a small flap, or 'rabort', which could provide some protection and rapid access.(11) Garland notes that the double buttoned 'rabort' or 'braguette' can still be seen in the frontal covering of the modern naval breeches.

Victorian etiquette looked down upon any flamboyant or ostentatious bodily display as "shameful". The codpiece would be revived in the 19th century when the accentuation of physical prowess would be the *modus operandi* of comic strip superheroes. Superman first appeared in cartoon form in 1938 with a much flatter appearing groin than in later representations. The



Figure 4. Early 16th century depiction of the codpiece or 'braguette' in layman's fashion, allowing for function and modesty in a time of the short tunic that did not reach the legs. These 'braguettes' were the forerunner of the front access panel of the 13-button Victorian and 20th century naval pants (From *Ancient colored costumes: Italy, Spain, Scotland, Germany and Holland, Oriental countries and the Indies*, 1572, National Library of France, Collection of Roger de Gaignières)

original Superman artist, Joseph Shuster (1914-1992), apparently illustrated an underground fetish comic featuring a more robust nether region. As more of the public became aware, the mainstream appearance of Superman's trademark red trunks enlarged.(12) As impressive a figure as Superman was, his codpiece is no match for D.C.'s villain, "the Codpiece", created by Rachel Pollock and Scott Eaton. First appearing in *Doom Patrol* Volume 2, #70, in September of 1993, the Codpiece had apparently acquired an inferiority complex after the character experienced a 'misunderstanding' in high school. To compensate for his perceived deficiencies, he created a codpiece that among other weapons included missiles, tools, and retractable boxing gloves.(13)

Modern popular culture

Stanley Kubrick's 1971 *A Clockwork Orange* integrates the modern protective function of the codpiece with artistic statement. The film critic Elena Lazic proclaimed that Kubrick's costume designer Milena Canonero may have "achieved her pinnacle" when costuming the 'droogs', the errant band of hoodlums at the center of the film, "engaging directly with the film's discourse on class, money, and power".(14) The droogs wear their codpieces on the outside rather than the inside of their costume, evoking the violent sexuality Kubrick meant to address. The droogs' costumes became a cultural touchstone, inspiring artists as varied as David Bowie (1947-2016) and Madonna Ciccone (1958-).(15) Numerous musicians have also embraced the codpiece as part of their concert attire. Michael Jackson (1958-2009) wore a codpiece during his 1992 *Dangerous* tour. DM Brockie (aka Oderus Urungus) (1963-2014) (Figure 5) of the band Gwar wore a codpiece with bold colors and teeth, and Chaim Witz (aka Gene Simmons) (b1949) incorporated a codpiece in his concert attire. (18) Witz discussed the use of the codpiece in 2002, positing that "(the codpiece) holds in my manhood.... Otherwise it would be too much for (one) to take. (one) would have to put the book down and confront life. The notion is that if you want to welcome me with open arms, I'm afraid you're also going to have to welcome me with open legs."(17,18)

The codpiece recently returned to its sartorial origins. Gucci and Thom Brown included both leather and satin codpieces in their Spring/Summer 2019 and 2020 collections, with Brown stating that "(the) codpiece is a whimsical representation of masculinity" and that he incorporated codpieces "somewhat for decoration, and for humor".(5,19-21) Similar to the

medieval use of codpieces to conceal bandages for sexually transmitted infections, the brand D.A.B.D. marketed genital aprons used to protect clothing from secretions while supporting the scrotum in the early 1900s. The codpiece is also the predecessor of the modern 'jock strap' and athletic cup.(15) The internet is replete with items from around the world marketed as insertable codpieces, such as the "Bangwear Detachable Codpiece Armored Jockstrap", promoting "bulge enlargement".(22,23)

Conclusions

The medieval knight attained social, cultural, and military dominance. With a metal plate codpiece, he also held dominance in rigidity. The codpiece became part of the male costume out of necessity but became a visual suggestion of masculinity and virility for half a century. In the battlefield, the codpiece on armor was both protective and assertive of masculinity, falling out of favor by the 1570s and revived in 20th century pop performance and sartorial culture. The codpiece may not make a mainstream fashion comeback, but its use on the gridiron and soccer pitch reflects its historic origin on the medieval battlefield.

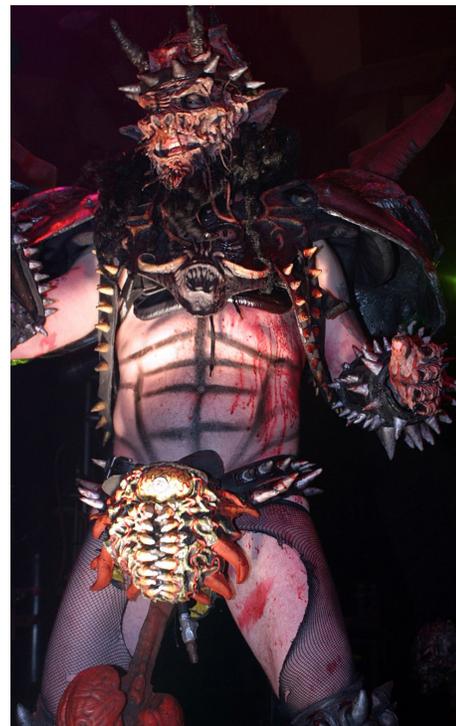


Figure 5. DM Brockie depicting his stage persona Oderus Urungus during his tenure in the rock group *Gwar*, sporting his trademark codpiece. (Creative Commons, Mark Marek, 2005)

REFERENCES

1. Turnbull S. *The Book of the Medieval Knight*. London: Wellington House; 1985: 6-93.
2. Barnes I. *The Historical Atlas of Knights & Castles*: Cartographica Ltd; 2007: 142-161.
3. Bowman K. *Corsets and Codpieces: A History of Outrageous Fashion, from Roman Times to the Modern Era*: Skyhorse Publishing; 2016: 16-30.
4. Chaucer G. *The Canterbury Tales*. London, England: Penguin Classics; 2003: 824-893.
5. Glover M. *Thrust: A Spasmodic Pictorial History of the Codpiece in Art*. New York, NY: David Zwirner Books
6. Shakespeare W. *Much Ado About Nothing*. *Comedies of Shakespeare*, Oxford University Press, London, 1969: Act III, scene iii, line 130-135.
7. Kurz O, *Burlington Magazine*, July 1945;87:175-177.
8. *The Histories of Gargantua and Pantagruel*. Rabelais F. Book III, chapter VIII. Garnier Frères - Libraires Éditeurs, Paris, 1871.
9. Breiding DH. Department of Arms and Armor, The Metropolitan Museum of Art, October 2004, www.metmuseum.org/toah/hd/afas16/hd_afas16.htm. Accessed 1/1/2024.
10. *Uniformes français sous Louis XIV et Louis XV, 1690-1721* Collection of Gustave de Ridder, pp 13-16, University of Paris.
11. Garland P, *The Codpiece: Life and Times*, *The Gay and Lesbian Review*, April 2015.
12. Britt R. *A Brief History of Superman's Bulge*. <https://www.inverse.com/article/25007-history-of-supermans-bulge-red-underwear> (accessed 10/25/2022).
13. *Codpiece (New Earth)*. - (dc.fandom.com/wiki/Codpiece) (accessed 10/25/2022).
14. Lazic E. *A Clockwork Orange and Fashion: Why the droogs never go out of style*. 2019. www.bfi.org.uk/features/stanley-kubrick-clockwork-orange-fashion (accessed 6/20/2023).
15. Vicary G. *Visual Art as Social Data: The Renaissance Codpiece*. *Cultural Anthropology* 1989; 4(1): 3-25.
16. Barket B. *GWAR's Oderus Urungus*. October 8, 2004 ed; 2004.
17. Interview, Gross T, National Public Radio, 2002.
18. Stiernberg B. *Remembering Gene Simmons' Contentious Interview with Terry Gross, 20 Years Later*. *Inside Hook*. 2022. Accessed 6/20/2023.
19. Elan P. *Intended to Induce Awe: Codpiece Thrusts Itself Back into Fashion*. *The Guardian*. 2019.
20. Yotka S. *Leather Knickers, Mickey Mouse Heads, and a Live Cockatoo—What You Need to Know About Gucci's Spring 2019 Show at Le Palace*. *Vogue*. 2018.
21. Tashjian R. *Why the Codpiece Remains One of Menswear's Most Essential Accessories*. *GQ*. 2019.
21. *Thrust: A Spasmodic Pictorial History of the Codpiece in Art*, Glover M. David Zwimmer books, 2019
22. *Bangwear Detachable Codpiece Armored Jockstrap* (Bang Clothes, Inc Miami, FL).
23. *MOBRWUVS Men's Underwear Swimwear Briefs Pad Bulge Enlargement Sexy Sponge Mats Coasters Swimming Trunks Thongs Shorts Cups* (Shanxi Qipeng Electronic Technology Co., Ltd., China). www.amazon.com (accessed 6/20/2023).

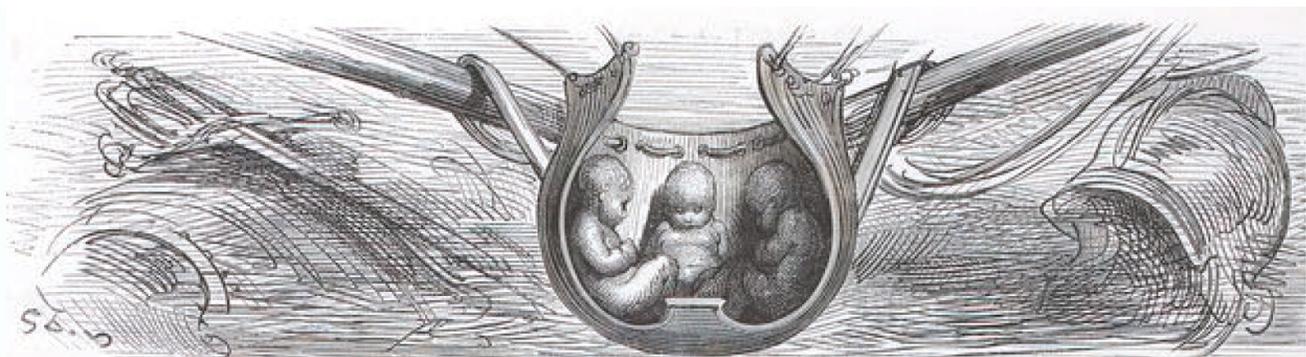


Figure 6. Title page illustration of a *braguette* or codpiece from Francois Rabelais, Chapter VIII, "*Comment la Braguette est Premiere Piece de Harnois Entre Gens de Guerre*".(8)

G.G. Smith: A Urologist on the Western Front

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Introduction: World War I (WWI) left a devastating impact on Europe. Urologist George Gilbert (GG) Smith served with a Harvard-associated group of surgeons and nurses stationed at the western front from 1915-1916. First-hand accounts and medical observations from the front are rare, so Smith's wartime diary is a valuable source to gain further insight into what was once termed the 'War to End All Wars'. Our objective was to study Smith's diaries from WWI to better understand the personal and professional experiences and sacrifices of those who fought and served.

Sources and Methods: The GG Smith diaries were obtained courtesy of the Smith family. Archives were consulted from the American Urological Association (AUA) William P. Didusch library (Linthicum, MD), Center for the History of Medicine at Countway Library (Cambridge, MA), the British Red Cross, the American Hospital of Paris, and cited secondary sources.

Results: Smith graduated from Harvard medical school in 1908 after training at Massachusetts General Hospital (MGH). He joined the growing urology faculty at Harvard under the leadership of Hugh Cabot. Following the start of WWI and before the United States' formal involvement in the war, the Harvard Surgical Unit (HSU) was one of a number of 'neutral' medical corps from America's elite hospitals, composed of individual doctors and nurses who were deployed wherever they were needed for a 3-month tour of duty. As a member of the HSU, Smith was stationed by the warfront, braving air attacks and bombs to care for hundreds of wounded, combatting infections, trauma, and fractious personalities. The skill in leadership he developed served him well as President of the AUA from 1935-1936, Chair of Urology at MGH from 1938-1945, and President of the Massachusetts Society of Social Hygiene from 1937-1945.

Conclusions: Smith's war time diary is testimony to the great philanthropic efforts of America's institutions during WWI, to the remarkable progress in medical and surgical care that was motivated by the devastation of that war, and to the diversity of people whose pragmatic heroism contributed to the Allied victory. .

Keywords: World War I, George G. Smith, History of Surgery



Over a century has passed since World War I (WWI), and society has since faced many other intervening wars, genocides, and natural disasters. However, WWI, the first mass killing of the 20th century, maintains its relevance. Armistice Day, the anniversary of November 11, 1918 when that war finally ended, continues to be celebrated annually as Veterans' Day or Remembrance Day, in honor of soldiers' sacrifices for their countries. Many of the medical and surgical practices that are characteristic of our modern medicine were born out of the necessity that the war's entrenched battlefronts created. But historians have noted that in the United States (US), WWI is also a forgotten war: whether because none of the fighting occurred on US soil, or because the US entered the fray rather late in its progress, or from the trauma of 117,000 military casualties sustained in

only 19 months, WWI does not feature prominently within the national consciousness.(1) This paper is a corrective to that oversight, using the wartime diary of an American urologist, Dr. George Gilbert (GG) Smith, to characterize the involvement of US medical personnel and recognize their contributions to the WWI Allied effort.(2) By analyzing this diary as a product, not only of the individual who wrote it, but also of the context in which he lived and labored, we can gain insight into the similar experiences of his medical colleagues on the Western Front.

SOURCES AND METHODS

Smith's diary came into the possession of the American Urological Association's (AUA) William P. Didusch Center fortuitously, as the AUA 2023 exhibit on Battlefield Urology coincided with efforts by Smith's grandson to

donate his grandfather's papers where they would be appropriately preserved and appreciated. Smith's family had kept his papers stored in their home following his passing in 1963, out of a conviction that they were important enough to merit preservation, especially those pertaining to Dr. Smith's volunteer efforts during WWI. These papers, which include not only his complete wartime diary and photos, but also various manuscripts from Smith's later career, are now accessible as part of the Didusch Center collection (urologichistory.museum)

Diary manuscripts are valuable primary historical sources, but they are also inherently problematic, biased by the conventions of the genre and especially the ego of the author.(3) Thus, they must be consumed critically: noting the ways that the personality, opinions, and prejudices of the author shape their contents; and attending to the negative spaces, people, places, and things that are elided or excluded from the text. For this study, other primary and secondary sources are used as references for contextualization and interpretation of Smith's diary.

This caution is particularly relevant to the history of medicine as composed by and for medical practitioners. Historiography, the meta-analytic study of the study of history, teaches that such self-reflective narratives are vulnerable to teleological or 'Whiggish' forms of interpretation, which describe history as a virtuous progress toward the physician-historian's status quo,

with erasure or vilification of people and things that do not fit that deductive argument.(4) When looking back at the history of biomedical science and clinical practice, it is tempting to elide or malign deviations from the path to what is standard or ideal practice today. But just as medical students are cautioned not to get too attached to what they are learning as much of it will sooner or later be proven wrong, it is essential to balance celebration of medical heroes with doubt, as we can learn from acknowledging their missteps and challenging their virtues.

Additional resources include French National Archives (www.leonore.archives-nationales.culture.gouv.fr/ui/), and the Countway Library of Harvard University (Boston).

RESULTS AND DISCUSSION

Pre-War Education and Practice

Dr. GG Smith was born in Brooklyn, NY in 1883. He moved to Boston as a student, graduating from Harvard University with a BA in 1905 and again with an MD in 1908. Smith completed his formal training as a surgical intern at the Massachusetts General Hospital (MGH) from 1908-1909, before going into surgical practice in Boston from 1910.(5) This rapid trajectory from student to surgeon was not remarkable for the time: it was only in 1904 that the American Medical Association Council



Figure 1. (Left) GG Smith (1883-1963), in his World War I uniform, chronicled his voluntary medical work with the Harvard Service Unit (HSU) in 1915, years before the US entered the war.(Courtesy, AUA Didusch Museum, Linthicum) (Middle) American socialite and philanthropist Julia Hunt Catlin Park Depew Taufflieb (1870-1947) who gave her chateau for use as a medical hospital where Smith and the HSU served (See Figure 2).(Wikimedia Commons, Public Domain) Her efforts throughout the war were recognized by France, and she was awarded (right) the Legion of Honor in 1921.(National Archives of France)



Figure 2. Madame Taufflieb's famed Chateau d'Annel, Longueil, France, the country estate repurposed as the closest hospital to the western front where GG Smith spent his medical time with the HSU. (Wikimedia Commons, Public Domain)

of Medical Education created a standardized medical school curriculum and Dr. William Halsted, first Chief of Surgery at Johns Hopkins and creator of the now-standard multiyear surgical residency training program, first presented his proposed principles of surgical training in a lecture at his alma mater, Yale University. (6,7) It took the publication of the Flexner report in 1910 to codify a 4-year post-graduate medical degree

program as the American ideal, and not until 1927 did the American College of Surgeons formally adopt Halsted's principles as a national standard for surgical education.(8)

The conclusion of Smith's formal surgical training coincided with the creation of a Genito-Urinary Department at MGH that was distinct from the Department of Surgery, under the leadership of Dr.



Figure 3. The Harvard Surgical Unit (HSU), 1915. Geraldine K Moss, back row 6th from right, took hundreds of photographs to chronicle the voluntarism of fellows surgeons and nurses from Boston's great hospitals at the western front including Elliot Carter, 2nd from right, and HSU lead surgeon, Harvey Cushing, front row, 3rd from right. (Countway Library, Harvard)



Figure 4. Surgical ward in the Chateau d'Annel, from GG Smith's personal collection. Spartan and minimally equipped by today's standards, the image still evokes order, a commitment to hygiene, and quietude though actually quite close to the western front. (AUA Didusch Museum, Linthicum)

Hugh Cabot. Cabot had been mentored by his older cousin, Dr. Arthur Cabot, who was himself a renowned MGH surgeon with a subspecialty interest in urology, recognized in the 1880s by his appointment as the first Instructor in Genitourinary Surgery at Harvard Medical School and his founding membership in the elite American Association of Genito-Urinary Surgeons. Initially only an outpatient department, under Hugh Cabot's tenure the urology service expanded in 1911 to include inpatients, and, in 1912, to treating women as well as men. This expansion required personnel, and having become interested in urology while training at Harvard, GG Smith joined the faculty in 1912, working principally in the outpatient clinic and with ambulatory surgical patients.(5)

Europe at War; America, a restless peace

When WWI broke out in 1914, the United States (US) government was committed to America's neutrality, but this did not prevent individual Americans and American institutions from choosing a side between

the Allies and the Central Powers that opposed them. Affinity between English-speaking nations and between Revolutionary democracies created a sympathy among many Americans for the Allied cause. Economics were also a powerful motivator as established British naval dominance over the seas meant that the Allies were a great market for American goods, with 'Total War' across Europe consuming farmland and disrupting local production and supply lines. Expatriate Americans who retained ties to their country despite choosing to live abroad formed an essential bridge of care.(9) In France, the 24-bed American Hospital of Paris was established in 1906 and given formal federal status by Congress in 1913.(10) Despite US neutrality, the hospital's presence on the ground made American medical involvement in the war a *fait accompli*.

On August 3rd, 1914, the very day that Germany declared war on France and invaded Belgium, the American Hospital of Paris's Board of Governors, led by Myron Herrick, U.S. ambassador to France, offered the hospital's services to the French government. In

exchange, France gave the hospital facilities and money to expand, turning it into a large, cutting-edge military hospital called the American Ambulance Hospital. It was quickly discovered that having a 'walk-in' or ambulance hospital in Paris was of limited help when soldiers were being wounded outside of the city. After the Battle of the Marne in September 1914, over 150,000 wounded Allied soldiers were stranded outside of Paris.(11) The Americans rushed to the rescue: Ambassador Herrick called his friends with cars, and they drove back and forth to bring the wounded to safety and care. This impromptu fleet was the start of the motor-ambulance corps, and the American Ambulance Field Service grew to number 100 vehicles by 1915, thanks to donations from individual philanthropists, civic groups, and the Ford Motor Company.(12)

Staffing was a product of volunteerism as well, with one-third of the enlarged American Ambulance Hospital and its 190 beds staffed by surgeons and nurses from various medical institutions across the United States, who rotated through the University service in 3-6 month shifts. Doing this while still maintaining a formal stance of neutrality toward the war was dubious, but those involved claimed that "It was not intended that the universities should assume any unneutral position, any more than surgery or science is unneutral."(13) The University Service was also justified as an educational endeavor, teaching American academics about the relief problems imposed by war and familiarizing American surgeons with military surgery. The first University Service

was from Western Reserve University in Cleveland organized by Dr. George Crile (who later founded the Cleveland Clinic,) and served from January to March 1915. The second was the Harvard University Service, organized by Dr. Harvey Cushing, from April to July, 1915, after which they were replaced by the University of Pennsylvania (Figure 3).(13)

The first motor-ambulance fleet could only carry 34 patients at a time, and the American volunteers did not arrive until 1915. British medical assistance did not arrive until October 1914.(13) For the first 3 months of the war, France fended for itself as the Germans pushed the warfront westward toward Paris, claiming many of the best-equipped hospitals' medical and surgical supplies as spoils. Within the first 6 weeks of the war, 300,000 French soldiers were wounded. The French medical community was overwhelmed. Surgeon Theodor Tuffier later lamented to George Crile that over 20,000 amputations had been made, many potentially avoidable had there been more qualified staff and systems for their management.(15) Unfortunately, rampant infection of wounds acquired in fields and trenches made them unmanageable by the standard antiseptics of the time (benzalkonium chloride, carbolic acid, and iodine, all still in use today). Nearly 70% of amputations were due to infection, not the initial injury; if the injured part could not be safely amputated, as with penetrating wounds to the abdomen, the patient inevitably died of septic shock, so surgeons gave up on trying to save them.(15)

The loss of life and limb from infection changed through



Figure 5. Madame Anne Carrel (1877-1968), demonstrating the bedside management of wounds on a patient with her husband Alexis Carrel's (1873-1944) revolutionary wound irrigator. The simplistic tubing, a predecessor of today's negative pressure devices, was commonly employed by Dr. Smith et al. at the Chateau in the combat against microbes and gas gangrene using the solution co-developed by Carrel and HD Dakin, later known as "Dakin's Solution". (Kilmer House, Johnson & Johnson archives, New Brunswick, NJ)

the research and work of Alexis Carrel (1873-1944), a French physician who had been working at the Rockefeller Institute for Medical Research in New York City before the war. He enlisted with the French army and was given an abandoned property in Compiègne, near the front to renovate into a military hospital. The Rockefeller Institute provided support for his hospital in the form of equipment and personnel, specifically Henry Dakin, a British biochemist who perfected a solution of sodium hypochlorite, which killed bacteria without destroying human flesh. Carrel developed a protocol of aggressive wound opening and irrigation with Dakin's solution, and the Carrel-Dakin method of wound care was widely adopted with remarkable success (Figure 5). By the end of the Harvard University Service's tenure in Paris, the front had been pushed eastward by a margin, with Carrel's hospital located within the new zone of safety. But this progress was tenuous and the fighting continued without an end in sight.

Recognizing an ongoing need for surgical support, as well as the positive progress through the application of Carrel-Dakin's method in conjunction with novel radiographic, magnetic, and reconstructive techniques, Harvard University opted to stay on in France as the Harvard Surgical Unit (HSU). The HSU was a mobile team composed of individual doctors and nurses who were deployed wherever they were needed for a 3-month tour of duty. The U.S. had yet to enter the war, so the HSU was officially a neutral organization that traveled under the auspices of the Red Cross. However, its members were formally enlisted in the British army, under the British Expeditionary Force, with similar rank and pay to the officers of the Royal Army Medical Corps. (12) This meant taking a pay cut, as the salary, paid out in francs, was less than one-third of what a surgeon would typically earn in the USA, so a certain amount of wealth was a prerequisite to participation.(2 p48, 15)

GG Smith on the Western Front

GG Smith volunteered with the first HSU unit but did not arrive with the majority of the participants, who preceded him by 2 weeks and had a different destination. From his diary, it seems that his separation from the rest of the group complicated his arrival. The first unit arrived in France through England, where they were entertained as a group at Warwick Castle.(12) Smith describes his loneliness taking solitary meals in Paris, being accosted by various characters of ill-repute who perceived him to be an easy mark because of his

inability with the language, and having his qualifications to practice medicine questioned by a grumpy, obdurate bureaucrat. He used the time to acquire his British army uniform (Figure 1, left), to take pictures and explore the city – its parks, restaurants, and nightlife – and also to get a crash-course in the management of traumatic fractures at the American Ambulance Hospital from the University of Pennsylvania team. Five stressful days later, he finally received his pass to proceed by train to Compiègne, and thence by car to the Chateau d'Annel (Figure 2), which had been turned into a military hospital where he was assigned to work.(2, p.10-16)

When describing his time at the Chateau, Smith makes occasional mention of Mr. and Mrs. Depew, its American owners. When war broke out, Julia Hunt Depew (Figure 1, middle) undertook conversion of her home into a hospital with 300 beds for wounded Allied soldiers, funded at her own expense. She ran the hospital for 4 years, often under indirect fire, as the front line was within walking distance. Smith's diary gives a sense of what this was like, describing how "one cannot see any signs of war, but nevertheless the German trenches run through the woods not four miles away."(2, p27) There were nights where his sleep was disrupted by shelling, and a memorable October morning when a German fighter plane passed overhead and a shell fired upon it by the French landed (thankfully without its explosive contents!) in the courtyard, just 8 feet from one of the nurses. Twice during Smith's tenure, the hospital had to evacuate in order to stay out of the immediate line of fire. Depew's generosity and courage were ultimately recognized by the French government as she was the first American woman to be awarded the *Legion d'Honneur* and *Croix de Guerre* (Figure 1, right).(17)

Though punctuated by moments of excitement, most of Smith's diary describes tedious routine. Every morning was devoted to changing the dressings of the inpatients – spending hours upon hours attending to this task was standard operating procedure in pre-antibiotic WW1 medicine.* Afternoons were for surgery – not always upon soldiers, as the hospital provided care for the local civilian population, and later for refugees as well. Smith cared for an 8-year-old girl who had been run over by a military lorry and an adult civilian who had fallen off his cart and sustained fractures of the ribs and clavicles, among others. Even for the soldiers, not all surgeries were due to trauma. Smith describes treating hydrocele, inguinal hernia, and appendicitis.

*Interestingly, as antibiotic resistance is on the rise, 21st century medicine may be coming full-circle to renewed appreciation of antiseptic wound care, with recent research suggesting washout with "antiseptic is superior to antibiotic" for prevention of surgical implant infection.(17)

Rounds at the Chateau

Most interesting and challenging were the battlefield injuries- penetrative wounds from shrapnel, broken bones, and exploded body parts. Initially, Smith chafed under the chain of command. British Captain Dr. Ernest Gerald Stanley, the permanent staff surgeon, hogged these "good cases", limiting Smith's involvement to performing perioperative dressing changes.(2, p.37) During his first 6 weeks at the Chateau, Smith spent a good deal of time wandering the countryside and playing tennis, or repetitively writing in his diary, "nothing doing." But once Stanley left on vacation, Smith took charge. He describes doing multiple surgeries each day, repairing fractures, opening and scrubbing out wounds. One of these cases was an occult urotrauma, a man with lumbar spinal fractures from shrapnel, who died within a day of hospital presentation and was found on autopsy to have an avulsed right ureter.(2, p.44)

"About 4 P.M. a man shot in many places by shrapnel came in. His lumber [sic] spinous processes were shot away, with possible involvement of peritoneum. He was in much shock. I anesthetized him, cleaned him up quickly, put in Carrel's drip...Called at 4 A.M. because of spine man. Thought he had peritonitis and was getting ready to operate when he died. Autopsy showed that one ball had passed through right kidney, tearing away pelvis. Not much hemorrhage. No peritonitis."(2, p.44)

From this and other patients described in his diary, Smith noted several lessons learned the hard way which are now surgical commonplaces: to maintain a high index of suspicion for wound infection, managing such infections aggressively; and that penetrating projectiles will often cause injury at a considerable distance from their entry sites, meriting generous use of exploratory surgery, and X-ray or other technologies when available. The Chateau had limited resources, but Smith occasionally traveled to neighboring hospitals in order to learn new techniques, such as the use of a Hirtz compass which, in conjunction with X-ray, helped surgeons to find shrapnel within the body, pioneering the same principles that we use to optimize percutaneous renal puncture for nephrolithotomy today. (19)

Perhaps because of his fractious relationship with Dr. Stanley or out of the characteristic kindness that was marked in his eulogy at the AUA some 50 years later,

Smith was generous in sharing operative opportunities with colleagues when he was empowered to delegate. (20) He describes administering general anesthesia so that another surgeon could operate, even though he found that particular colleague to be a rather obnoxious personality (an assessment with which the nurses agreed). Smith quoted the very British Sister Bateman as saying of Dr. D--- "A most objectionable old *parson!*" (in her English accent.) (2, p.41,43) Smith was a sensitive and thoughtful observer of those around him, both in and out of the hospital, and his diary devotes considerable space to describing not only his coworkers and patients, but the travelers, civilian and soldiers whom he encountered along the way.

The Iniquities of War

Smith particularly admired the military units that seemed to him more exotic: the Spahis, cavalry recruited from the Arab and Berber populations of France's North African colonies, especially Morocco; the Zouaves, infantry troops from Algiers; and the Chasseurs, or rangers. The contribution of these African soldiers and of other colored participants to the Allied war effort and ultimate victory has often been overlooked.(21) Smith's diary is a salutary reminder of their participation and heroism, and of the importance of recognizing and honoring a diversity of races, ethnicities, and cultures. Failure in this can lead to some awkward moments. During his journey across the Atlantic, for example, Smith sang in a sing-along the popular Stephen Foster tune "Old Black Joe," about an enslaved African-American. He realized only after the fact that this was a microaggression against the Haitian representatives to the USA who were sitting next to him.(2, p.6)

GG Smith Goes Back to Washington

After his 3-month voluntary tour of duty, Smith returned to the United States, to his family and position at MGH. His diary ends here, but his involvement with the war effort did not. The third HSU, which served principally at the hospital in Camiers from May to September of 1916, was led by Hugh Cabot.(13) This required the urologists who remained on the home-front to take up his mantle. Smith served as Acting Chief of Genitourinary Surgery until he too was brought back to the warfront, this time as a surgeon for the American military, as by then it was 1917 and the US had entered the war. Smith made it home safely, and in the years that followed his career in urology flourished. He turned the pain of participation in the war into academic productivity, publishing articles on the management of venereal disease and a book

to familiarize non-specialist physicians and surgeons with urologic care.(22,23) This commitment to sharing medical knowledge characterized not only Smith's work, but also his leisure time, part of which he devoted to the Massachusetts Society for Social Hygiene (MSSH), a group established to promote sexual education. The skill in leadership that he initially developed at the Chateau d'Annel in Dr. Stanley's absence reached its fruition in the decades between the world wars. He served as President of the AUA from 1935-1936, Chair of Urology at MGH from 1938-1945, and President of the MSSH from 1937-1945 (Figure 6).(5)



Figure 6. G G Smith later in life, having served ably as AUA President from 1935-1936 and MGH Chair of Urology at MGH from 1938-1945 (Massachusetts General Hospital, Archives and Special Collections).

CONCLUSION

In a conventional, Whiggish recounting, in which history is perceived as a journey from a benighted past to an enlightened present, we would conclude on this triumphant note. But it is both more useful and more honest to end instead with an invitation to consider and embrace not only Smith's professional and personal successes, but also his struggles and occasional missteps. Just as a written diary offers an individual and idiosyncratic view of history, so too is interpretation of that record filtered through the biased perspective of the reader. The use of military metaphors to describe the COVID-19 pandemic has been justly criticized, but in reading Smith's diary, I found resonances with my

own experience as a volunteer on one of the many makeshift COVID wards in 2020.(24) I empathized with his combination of tedium and terror, laboring in the face of uncertainty as to whether the care provided to patients would help them, and especially the struggle to honor the dead who passed too young without those who loved them by their side. Like Smith, I made an effort to learn from these experiences and to turn this adversity into productivity. But if I were alive over a century ago, I would have been at most a footnote in the history that is written based on Smith's diary, which definitively characterized young women and Jews like me as 'the other' with whom he chose not to associate. (2, p.5) These are rich source documents, and the diary is a valuable addition to the AUA archives, but equally important is our considered attention to the people and perspectives that manuscripts such as this one cannot represent.

REFERENCES

1. Rubin R. *The Last of the Doughboys: the Forgotten Generation and their Forgotten World War*. 2013, Boston: Houghton Mifflin Harcourt.
2. Smith GG. War Diary. Unpublished manuscript, archived at AUA Didusch Center Museum of Urologic History, 1915. 53p.
3. Paperno I. What Can Be Done with Diaries? *The Russian Review* 2004; 63: 561-573.
4. Tomes N, Jones KW. Introduction. *Journal of the History of Medicine and Allied Sciences* 2018; 74(1): 1-14.
5. MGH Department of Urology. History of Urology at Massachusetts General Hospital. [Website, last accessed July 2, 2023] Available from: <https://www.massgeneral.org/urology/about/history>.
6. JAMA Editorial Staff. Medical Education - Progress of Twenty-Two Years. *JAMA* 1922; 79(8): 660-662.
7. JAMA Editorial Staff. The Training of the Surgeon. *JAMA* 1904; 43(21): 1553-1554.
8. Rothstein WG. *American Medical Schools and the Practice of Medicine: a History*. New York: Oxford University Press, 1987. p408.
9. Neiberg MS. *The Path to War: how the First World War created Modern America*. New York, NY: Oxford University Press, 2016. p 313.
10. American Hospital of Paris. Our History. [Website, last accessed July 2, 2023] Available from: <https://www.american-hospital.org/en/page/our-history>.
11. Sumner I. *The First Battle of the Marne 1914: The French 'Miracle' Halts the Germans*. Oxford: Osprey,

2010. 88p.

12. American Hospital of Paris. The American Hospital of Paris During the Great War. [Website, last accessed July 2, 2023] Available from: <https://www.american-hospital.org/en/page/american-hospital-paris-during-great-war>.

13. Center for the History of Medicine at Countway Library. Noble Work for a Worthy End: Harvard Medical School in the First World War. Center for the History of Medicine at Countway Library exhibit, 2016. [Digital Collections & Exhibits, last accessed July 2, 2023] Available from: <https://collections.countway.harvard.edu/onview/exhibits/show/noble-work-for-a-worthy-end>.

14. British Red Cross. British Red Cross Transport During the First World War. [Website, last accessed July 2, 2023] Available from: <https://vad.redcross.org.uk/>.

15. Hampton E., How World War I Revolutionized Medicine, in *The Atlantic* 2017. [Website, last accessed July 2, 2023] Available from: <https://www.theatlantic.com/health/archive/2017/02/world-war-i-medicine/517656/>.

16. Emmons AB. A Collection of Letters from Graduates of the Harvard Medical School. Cambridge, MA: Harvard University Press, 1915. 114p.

17. Chaudhary Y. American socialite was WWI humanitarian hero. U.S. World War One Centennial Commission, 2018. [Website, last accessed July 2, 2023] Available from: <https://www.worldwar1centennial.org/index.php/communicate/press-media/wwi-centennial-news/4202-american-socialite-was-wwi-humanitarian-hero.html>.

18. Henry G. IPP Infection Control, in American Urological Association (AUA) Annual Meeting 2023: Chicago, IL.

19. *United States Surgeon-General's Office. United States Army X-ray manual*. New York: Hoeber, 1918. 506p.

20. Chute R. Dr. George Gilbert Smith (1883-1963), in AUA Annual Meeting 1964: Pittsburgh, PA.

21. Dean WT. The French Colonial Army and the Great War. *The Historian* 2014; 76(3): p. 479-517.

22. Smith GG. The Venereal Infirmary at Camp Humphreys, Virginia. *The Boston Medical and Surgical Journal* 1919; CLXXX(10): 270-272.

23. Smith GG. *Outline of Genitourinary Surgery*. Philadelphia: W.B. Saunders Company, 1919.

24. Wise A. Military Metaphors Distort the Reality of COVID-19. *Scientific American* 2020. [Website, last accessed July 2, 2023] Available from: <https://blogs.scientificamerican.com/observations/military-metaphors-distort-the-reality-of-covid-19/>.

From Contract Surgeon to Town Doctor: The Life and Legacy of Dr. Martin Light Herr

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Introduction: The life and legacy of Dr. Martin L. Herr of Lancaster, PA helps to correct the popular perception that contract surgeons in the Civil War were nothing more than quacks and butchers when in fact they proved to be courageous and competent physicians essential to give medical care to overwhelming numbers of casualties.

Sources: Personal papers and archives of ML Herr in the Lancaster Historical Society (Lancaster, PA) were reviewed.

Results: ML Herr obtained his medical training and degree while serving as a contract surgeon during the Civil War. He transformed that experience to become a community leader and town physician and surgeon. His legacy helps to restore the reputation of contract surgeons to the honor they deserve.

Conclusions: Dr. ML Herr served both his fellow man and his community with distinction during the Civil War and in civilian life. He left the army, his country, the people of Lancaster, his family, and his profession better off because of his presence.

Keywords: Civil War, Contract Surgeons, Martin Light Herr



n February 10, 1902, the Lancaster Register announced the untimely death of a prominent local citizen and surgeon, Dr. M. L. Herr.(1) The obituary headlined, "one of the city's oldest and leading physicians summoned." After collapsing from a "stroke of paralysis", he never regained consciousness and died late in the afternoon on February 8th at his residence in Abbeyville, on the Columbia turnpike. He was in his sixty-third year and the cause was listed as 'Bright's disease'. Although Dr. Herr did not enjoy robust health for several years before his death, he was able to attend to his practice. A week before his attack, he visited patients and attended the annual banquet of the Lancaster Pathological Society. Recounting the accomplishments of his life, the eulogies following his death bemoaned the loss to community, family, friends, and patients.(2) Dr. Herr was praised as "one of our best physicians, beloved husband and father, loyal to country, a generous and true friend." The Board of Directors at Lancaster General Hospital passed a resolution in his honor and displayed a plaque at the entrance that reads "firmness of honest conviction, devotion to his laborious profession, well-stored and ready mind, called him daily to this hospital." The Member Board of the Conestoga National Bank

described him as "a public-spirited citizen and a devoted, unselfish, ever-watchful physician." And the faculty at Franklin and Marshall College paid homage to him as an educator having "lofty qualities of character and mind, genial disposition, sympathetic spirit, high sense of humor, and Christian manliness." Herr served as well during the Civil War as a 'contract surgeon', a medical position that infamously had not been held in high regard by either contemporaries or subsequent historians of that conflict. The contrast, therefore, between the great accolades of Herr's life with the lowly field position he once served requires closer inspection. Our objective is to determine whether Herr's remarkable career illustrates a more accurate example of a Civil War contract surgeon than what is popularly alleged.

SOURCES AND METHODS

M.L. Herr's personal papers, containing military documents, correspondence, and newspaper articles, housed at the Lancaster Historical Society, were reviewed by the author. Primary surgical data from the 1861-1865 conflict was obtained from the *Medical and Surgical History of the War of the Rebellion*. Archives of Vanderbilt University School of Medicine were accessed with secondary source materials as cited.

RESULTS

Contract Surgeons

At the start of the Civil War in 1861, the Federal medical corps was comprised of 113 regular army surgeons, of whom 24 resigned their commissions and went South to join the Confederacy. To meet the demands of the mounting casualties of war, the Union army began to recruit civilian physician volunteers to help regular surgeons care for overwhelming numbers of wounded. They were known as 'contract surgeons.' Many had little to no surgical experience. Herr was one of the 5,532 civilian physicians who worked for the Union army as a contract surgeon. Officially titled Acting Assistant Surgeons, U.S. Army, contract surgeons served primarily as ward physicians in general hospitals located in cities and towns remote from the battlefields. They held no commission and were paid monthly. Most contracts lasted only 3 to 6 months (4).

Contract surgeons were held in low esteem by regular army medical officers because they were perceived as inexperienced (certainly in surgery), refused to perform mundane medical tasks such as dressing wounds, and wanting only to operate (meaning to amputate) without the surgical judgement to decide how and when. Throughout the war, the press was especially critical of

surgeons in general, especially after Antietam, the war's 'bloodiest day' on September 17, 1862. The October 19, 1862 issue of the New York Times reported that the medical corps had "so many quacks and butchers", that "the damned surgeons (were) not worth a curse", and that the "limbs of soldiers were in as much damage from the ardor of young surgeons as from the missiles of the enemy." That popular perception persisted during and after the war. Herr, however, was an example of a contract surgeon who took full advantage of his wartime experience to further his education and improve his skills. He served until the end of the war, completed his medical education and left the army as a regular army surgeon. Both the gravely wounded during the war, and his civilian patients in later life, benefited directly from his experience. Overall, contract surgeons performed admirably and with great courage, and many went on to have notable careers (4). Without them, many more wounded would have died. Dr. Herr was not an exception; he was the norm.

Early Life

Martin Light Herr was born September 13, 1838, in Strasburg, Lancaster County, Pennsylvania. His father was Christian B. Herr, a prominent miller and farmer of West Lampeter township. His mother was Maria Light, daughter of Martin Light, also a prominent farmer and landowner. Dr. Herr was a descendent (as is the author)



Figure 1. (Left) M L Herr (1838-1902), in an 1864 daguerrotype at the time of his service in the Union Army as a contract surgeon in the Civil War.(3) He married Rosina E. Hubley (1846-1889) six years later, having five children between 1871-1880, and were both active members of the Lancaster Pennsylvania community. (Lancaster County Historical Society)

This Contract, entered into this 22nd day of January, 1863, at Philadelphia, State of Penna, between Surg. W.S. King, M.D. Sr., of the United States Army, and Dr. M. L. Herr, of Lancaster, in the State of Penna, Witnesseth: that for the consideration hereafter mentioned, the said Dr. M. L. Herr promises and agrees to perform the duties of a Medical Officer, agreeably to the Army Regulations, at Nashville Tenn, or elsewhere and the said Surg. W.S. King promises and agrees, on behalf of the United States, to pay, or cause to be paid, to the said Dr. M. L. Herr, the sum of one hundred dollars for each and every month he shall continue to perform the services above stated, which shall be his full compensation, and in lieu of all allowances and emoluments ~~whatever~~. This contract to continue at least three months, unless sooner determined by the commanding officer for the time being, the Medical Director, or the Surgeon General.

Signed, sealed, and delivered
in the presence of }
Geo. S. Massey }
M. L. Herr }
W.S. King }

* SEAL *

* SEAL *

Figure 2. Original 1863 contract employing M. L. Herr as a contract surgeon in which he agreed to perform any and all duties of a medical officer in the United States Army and to be paid the sum of \$100 dollars/month (Lancaster County Historical Society)

of Hans Herr, the pastor and spiritual leader of a small flock of Reformed Mennonites (called Herrites) who emigrated from Switzerland and settled near Lancaster in 1710 (5). His early education was obtained in the Lancaster public schools and, at the age of 19, he began life as a schoolteacher.

Herr decided upon medicine as his life work and in 1860 at age 21 years, he began to read medicine under the tutelage of Dr. Patrick Cassidy, a leading local physician and surgeon. In 1862 he attended one and a half lecture terms at Jefferson Medical College in Philadelphia, but less than the two full lecture courses that were required to obtain a medical degree. As the war was escalating, the army was in desperate need of physicians, surgeons and assistants, and Herr sought an appointment as a medical cadet (a term reserved for medical students).(6)

Appointment as a contract surgeon

Early in January 1863, Dr. Cassidy recommended Herr for an appointment in a letter to the Examining Board of Surgeons, writing "Gentleman, Mr. M.L. Herr student has been studying medicine in my office and under my instruction. He is a young gentleman of most studious habits, strictly temperate and excellent moral character devoting his entire time to the pursuits of science. I have implicit confidence in his worth and integrity".(7)

Shortly thereafter, Herr appeared before the Examining Board in Philadelphia. In a hand-written note dated January 21, 1863, the President of the Board, Surgeon M. Agnew informed M.S. King, Medical Director, U.S. Army that "Doctor M.L. Herr having appeared before the Board of Examiners has been approved for the post of Acting Assistant Physician".



Figure 3. The contract surgeon of the Civil War period, in caricature. The drawing included the unflattering lyric: *"Ho! Ho! old saw bones here you come, Yes when the rebels whack us, You are always ready with your traps, To mangle, saw, and hack us."* (The Library Company of Philadelphia)

(7) It is interesting and noteworthy that Herr not only successfully passed a rigorous medical examination as a medical student that many certified physicians failed, but that he was appointed as a surgeon rather than as a medical cadet. On the following day, January 22, 1863, Herr signed a contract as a private physician with the United States Army in which he agreed to perform the duties of a medical officer in whatever capacity the army sees fit and to be paid the sum of \$100 dollars each month for his services (Figure 2).

Late in January 1863, Herr received Special Order No. 13 from the Office of Medical Director, U.S. Army, in Philadelphia – "Dr. M.L. Herr having received a favorable response from the Examining Board will proceed without unnecessary delay to Nashville, Tennessee and report in person to surgeon Henry Thurston, Assistant Medical Director, Department of the Cumberland."(8) Herr was referred to as 'doctor' in these official reports despite not having a customary medical degree. At any rate, at the start of the third year of the war, Herr's medical

training was undoubtedly needed to bolster the understaffed medical corps. Responding to a request from the Governor of Ohio, surgeons were especially needed in Tennessee because of heavy casualties sustained among Ohio regiments after battles at Fort Donelson, Shiloh, and Stones' River. (4) Despite lacking a formal medical degree, the records indicate that Herr served in full capacity as Acting Assistant Surgeon, including performing many varied and complicated surgical operations. He referred to himself as Acting Assistant Surgeon in the Personal Report of his activities submitted every month, and he was referred to as Herr, M.L. (a. a. surg.) in written orders he received daily as well as his monthly payment receipts.(8)

Medical service in Nashville

His orders to proceed to Tennessee without delay brought Herr to Nashville sometime in March 1863. On April 2, 1863, he was assigned to General Hospital, No. 8, one of Nashville's eleven general hospitals active during the war. These hospitals were sprawling affairs composed of hundreds of tents scattered among single-roofed frame buildings. Each hospital housed between 500 and 1000 beds, and most

were always occupied. On his first day, Herr was issued Circular No.1 prepared by J. Morris Brown, Assistant Surgeon, U.S. Army for General Hospital No.8 outlining the duties of the medical staff – "Medical officers are expected to visit the wards under their charge regularly each day at 8 1/2 o'clock a.m. and 4 o'clock p.m. Each officer will be required to serve as officer of the day as per roster and will perform the duties usually devolving upon such. He will report in person to the surgeon in charge at 9 1/2 o'clock a.m. when he goes on duty and in writing at 9 1/2 o'clock p.m. when relieved. He will be found at his post at all times when not engaged officially elsewhere. It is expected he will wear his sash." Since surgeons (and not medical cadets) wore a sash suggests that Herr's superiors regarded him as acting assistant surgeon.(7-9)

Like many other contract surgeons in Nashville, Herr was assigned as a ward physician responsible for dressing wounds, prescribing drugs and caring for the overall needs of injured soldiers convalescing in the general hospitals. He was also detailed to "attend daily at the Engine House No. 3 Cherry Street South, Nashville, between the hours of three and five o'clock p.m. and vaccinate (against smallpox) such citizens as may present themselves for that purpose." There is no record

Case	Unit	Date of Injury	Injury/site	Operation	Date of Surgery	Outcome
AW	2nd Ken	Oct 9, '64	GSW*, head	trephine	Nov 7, '64	Survived, return to duty
JS	55th Ohio	July 20, '64	GSW, head	trephine	July 24, '64	Died, Sept. 7, '64
SR	4th Indiana	Sept 3, '64	GSW, feet	Amp**, toes	Sept 9, '64	Survived, return to duty
OW	103th Ohio	May 14, '64	GSW, pelvis	perineal incision	Nov 24, '64	Survived, discharged
DG	31st Wisc	Nov 10, '64	hydrocele	radical drainage	Nov 13, '64	Died, Dec 16, '64, pneumonia
AS	51st Indiana	Dec 16, '64	GSW, shoulder	Excision, scapula	Dec 20, '64	Died, Jan 31, '65, pyemia
PB	80th Indiana	Dec 10, '64	GSW, shoulder	Amp, arm at shoulder	Dec 10, '64	Died, Dec 11, '64, exhaustion
JD	96th Illinois	Sept 20, '63	GSW, arm	Amp, mid-arm	Nov 26, '63	Survived, return to duty
WW	125th Ohio	May 14, '64	GSW, arm	Amp, mid-arm	May 21, '64	Survived, discharged
CL	23rd Mich	Dec 3, '64	GSW, forearm	Amp, upper forearm	Dec 16, '64	Died, Dec 23, '64, gangrene
AF	86th Indiana	Nov 25, '63	GSW, elbow	none	-	Died, Dec 16, '63, pyemia
GD	6th Ken	Nov 25, '63	GSW, forearm	Amp, upper forearm	Dec 13, '63	Survived, discharged
JW	19th Inf	July 30, '64	GSW, knee	Amp, lower thigh	Oct 25, '64	Died, Nov 5, '64, gangrene
WD	73rd Penn	July 30, '64	GSW, thigh	Amp, upper thigh	Aug 23, '64	Survived, return to duty
ED	18th Ohio	Dec 15, '64	GSW, thigh	Amp, upper thigh	Dec 16, '64	Died, Dec 27, '64, pyemia
BD	18th Ohio	Dec 15, '64	GSW, thigh	Amp, lower thigh	Dec 15, '64	Died, Jan 8, '65, gangrene
FK	71st Ohio	Dec 16, '64	GSW, thigh	Amp, lower thigh	Dec 17, '64	Died, Dec 29, '64, pyemia
TS	12th Tenn	Sept 22, '64	GSW, thigh	Amp, upper thigh	Nov 7, '64	Died, Nov 22, '64, exhaustion
GW	7th Ohio	Nov 27, '63	GSW, thigh	Amp, lower thigh	Mar 15, '64	Survived, return to duty
JR	59th Illinois	Aug 19, '64	GSW, thigh	Amp, lower thigh	Dec 7, '64	Died, Jan 4, '65, gangrene
GW	1st Ohio	Sept 30, '63	GSW, leg	Amp, upper leg	Nov 6, '63	Died, Nov 7, '63, pyemia
BM	8th Kansas	Dec 16, '64	GSW, leg	Amp, lower leg	Dec 17, '64	Survived, return to duty
WY	French Div	Nov 30, '64	GSW, leg	Amp, lower leg	Dec 24, '64	Survived, return to duty
DL	5th Tenn	Mar 14, '64	GSW, leg	Amp, upper leg	June 6, '64	Died, June 10, '64, exhaustion
FD	8th Ark	Nov 30, '64	GSW, leg	Amp, upper leg	Jan 2, '65	Survived, exchanged
CF	2nd Ind	May 9, '64	GSW, leg	Amp, lower leg	June 14, '64	Died, Sept 30, '64, gangrene
SB	4th Indiana	Sept 3, '64	GSW, foot	Amp, toes	Sept 3, '64	Survived, return to duty
MW	1st Mich	June 30, '65	Fracture, arm	Amp, arm at shoulder	June 30, '65	Survived, discharged
JF	13th Wisc	April 18, '65	Eye infection	Excision, ectropion	April 18, '65	Survived, return to duty

Table 1. Operations performed by Dr. Herr during Civil War from the epic *Medical and Surgical History of the War of the Rebellion*, edited by GA Otis, 1876.(13) *GSW, gun shot wound; Amp, amputation

that he performed surgery during his first five months of service, but he must have assisted some and surely faced the ravages of infection, namely cellulitis, sepsis and hospital gangrene, that ultimately took the lives of many surgical patients. It was on the wards that he began to understand the importance of antisepsis that would later mark his civilian work. He also evaluated and prescribed medications and diets for the medically ill with typhoid fever, pneumonia, and the ever-present dysentery. His letters to his mother described daily life on the wards dressing ghastly wounds, being aroused at night to stem secondary hemorrhages from the stumps of severed limbs, dispensing liberal doses of calomel, tartar emetic, quinine and opiates, the lack of sleep, and the sad, forlorn faces of the injured and dying.(7,8)

On October 7, 1865, his contract with the U.S. Army was formally annulled. The Medical Director's Office, Department of Tennessee issued – "The service which Dr. M.L. Herr has rendered in this Department, were well and faithfully performed."(10) That did not end his military service, as he was formally appointed in December 1865 as assistant surgeon and assigned to the Army of Tennessee (11). He served in this capacity until late 1866, when he resigned from the army to return home to Lancaster.

Medical degree

During the latter part of 1863 and into 1864, and while serving as a medical officer under contract in

the General Hospitals in Nashville, Herr completed his studies in the Medical Department at the University of Nashville (now Vanderbilt University Medical School) (Figure 4). Requirements for a medical degree at Nashville included 1) three years regular study in the office of a regular physician, 2) attendance upon two full courses of lectures in a regular school of medicine, the last of which must be at this Institution, 3) four years reputable and regular practice will be accepted in lieu of one course of lectures, 4) write a clear thesis on some medical topic and deposit it with the Dean by the first day of February, and 5) the candidate must be 21 years of age, and of good moral character (11). Herr's three-year preceptorship with Dr. Cassidy, attendance of more than one lecture term at Jefferson Medical College, and his ongoing war activities more than qualified him as a candidate. He paid for and received tickets to attend the \$105 second course of lectures required for his medical degree, under the direction of W.K. Bowling, Dean (12). These included instruction in chemistry and pharmacy (materia medica), surgery, surgical anatomy, physiology, obstetrics and diseases of women and children, and practice of medicine. He also studied surgical anatomy, McLeod's Crimean War, camp diseases, surgical fevers, and Wood's Practical Medical Principles and Therapeutics, spending a total of \$177.23 on medical books (12). His thesis aptly addressed sanitation and problems of wound infection. In 1864, he was awarded a Doctor of Medicine degree from the



Figure 4. The medical school at Nashville where Herr completed his medical studies and obtained his degree in 1864 about 10 years before it became better known as Vanderbilt University School of Medicine (Eskind Biomedical Library, Vanderbilt).

University of Nashville. On September 29, 1864, Herr again appeared before an Examining Board of Surgeons, this time in Nashville. The Medical Board informed A.L. Gillem, acting general of the state of Tennessee "we have examined Dr. M.L. Herr thoroughly in medicine and surgery and found him well qualified for the position of surgeon, and do therefore recommend him for that position"(10). In 1865, he was assigned to the Army of Tennessee as assistant surgeon (11).

Surgical experience

Dr. Herr performed a variety of surgical procedures on soldiers on both sides. He also assisted other surgeons during operations and performed all or part of many others not registered in the *Medical and Surgical History of the War of the Rebellion*.(13) Indeed, he received a request from the surgeon in charge at General Hospital No. 1 to provide medical histories to accompany specimens for "your surgical operations since September 30, 1863."(7) He was particularly busy in November and December 1864 after the Battles of Spring Hill, Franklin and Nashville.

Of Herr's operative cases, 52% died of their wounds, mostly caused by overwhelming infection. The most common operation performed was amputation, but Herr acted not only as a military trauma and orthopedic surgeon but also as neurosurgeon, urologist, ophthalmologist (Table 1). Since Herr did not practice in a field hospital near the battles, he seldom had an opportunity to intervene soon after injury. His surgical results reflect the ravages that festering wounds imposed despite later heroic attempts at aggressive surgery. Weeks or months after attempts to save limbs by conservative 'resections', contaminated wounds were far too advanced to salvage many patients, although there were exceptions. He contributed a total of seven specimens to the army war museum in Washington D.C. He also conducted autopsies on all his fatal cases to document the lethal pathologic effects of local wound sepsis and septicemia on distant organs.

The Court Martial

On June 30, 1865, Herr received a request from the General Adjutant's Office in Nashville "to a report for trial tomorrow morning at 9 o'clock to answer general charges of a violation of the 7th Article of War."(8) The charges levied against M.L. Herr claimed he ordered the release of prisoners who had been mistreated and unduly confined by the commander of guards, declaring

"I don't care if they are confined there by the commanding officer, I again order you to release said prisoners. Those are my orders, and you shall obey them."(8)

Although the charges do not give details regarding injuries or medical condition of the prisoners, how they were being mistreated, or why Herr wanted them released, it seems by insisting on humane treatment of prisoners, he was interfering with military discipline. There is no record of any adverse judicial action against Dr. Herr, and he certainly retained his position as assistant surgeon in the army medical corps. The episode did upset his mother, Maria Herr. When she learned later of the court proceedings, Maria wrote to him November 15, 1865, that "he should not have risked himself" and advised him "to keep his good name." Fearing distractions, she also admonished him apologetically "not to bring a lady back from the South". (14) He obeyed and later married Rosina E. Hublely of Philadelphia, September 6, 1870, referring to her as "my dear Rose."(15) The couple raised five children. Their eldest son, John, became a physician in Lancaster after graduating from the University of Pennsylvania medical school.

Post Bellum Career

Dr. Herr returned to Lancaster in 1867 and established a large and successful medical and surgical practice. His services were in great demand, and he was called to perform many delicate and intricate operations. (16) Armed with Lister's revolutionary techniques of antiseptic surgery, he applied these principles in surgical practice for the next 30 years, reducing his wartime frequency of postoperative infection. He also applied the new science of bacteriology in public health, helping to clean up the local water supply, and he established the first Board of Health in Lancaster and became its president. He lectured frequently on hygiene and infection and contributed to medical journals (18). He organized the Lancaster Pathological Society, served several terms as president and delivered a lecture to the Society titled "sepsis, puerperal fever, pelvic cellulitis and multiple abscesses are things of the past" (19.) He served as the first medical director of the newly established Lancaster General Hospital from 1893 until his death in 1902 (hospital today is a prominent regional medical center and part of the University of Pennsylvania health network). He was a member of the Medical Societies of Lancaster County and Pennsylvania as well as the American Medical Association. He was selected

twice as AMA delegate to the annual conventions of the International Medical Association held in 1890 in Berlin and in 1894 in Rome (19). He lectured on anatomy, physiology and hygiene at Franklin and Marshall College in Lancaster and served for 12 years on the Lancaster School Board.

Legacy of Dr. Martin L. Herr

The Civil War had a profound impact on Herr's life, evidenced by much of his later professional activities. To be sure, Herr was an industrious and motivated young man who attended two distinguished medical colleges and completed his formal medical education while serving the Union army during the war. He was entrusted with the responsibilities of a ward physician as Acting Assistant Surgeon, which included performing surgery, even before he obtained his medical degree. This fact alone speaks to his ability as well as to the Civil War era as a desperate time of great need. As a result of his war experience, he began to understand and appreciate the association between contagion and infection and he recognized the importance of asepsis and antiseptic surgical techniques in preventing infection. His own favorable experiences motivated him in civilian practice to educate others on this topic in journals and lectures to professional groups and students. Concern for hygiene extended beyond his individual patients to public health when he organized the first Board of Health in Lancaster. And his lifelong interest in education was exemplified by more than a decade of faithful service on the local school board and to students at Franklin and Marshall College.

DISCUSSION

Out of the conflagration, chaos, and misery of the war emerged a whole generation of educated physicians and surgeons who became trained far beyond the limitations of the lecture hall 'medical school' format of the pre-Flexner era. Post-bellum medical persons now dispersed themselves across the country and began to think and practice scientifically, well poised to take full advantage of the revolutionary medical advances to come in the late 19th century. Many of the 'new generation' of physicians had been contract surgeons like Dr. Herr, assigned to the front lines and hospital wards of the American Civil War. There are numerous

statues of generals and soldiers adorning battlefields and public squares, but there is no statue that honors a Union army surgeon. Herr's diaries and medical accomplishments illustrate popular misconceptions of the Civil War contract surgeon. In contrast to the 'quacks' and 'hacks' so erroneously vilified in the lay press, most contract surgeons performed admirably well, in harsh conditions, with ethical and scientific rigor, and advanced the field.

It was said of Herr that he "served faithfully as great a cause as earth had known, contributed to saving lives, learned from his experience, educated others, and passed again into private life as an unremembered, unrewarded servant of duty" (13). Herr served both his fellow man and his community with distinction during the Civil War and in civilian life. If a man's life is judged not by what he says but what he does, then Martin L. Herr, MD indeed did much. Herr was buried with his wife, who had pre-deceased him by several years, in Woodward Hill Cemetery in Lancaster. The well-publicized life of a leader in community affairs and promoter of many progressive enterprises had come to an end. He left the army, his country, the people of Lancaster, his profession, and his family better off because of his presence.

References

1. Lancaster County Historical Society (LCHS). MG-126, The Martin L. Herr, M.D. Collection, 1772-1970. Folder 19. Newspaper clippings of the death of Dr. Herr, 1902.
2. LCHS, MG-126, Folder 18. In Memoriam of Dr. Martin L. Herr, 1902. Ten personal letters to Mrs. Herr, and resolutions from the Lancaster General Hospital, the Conestoga National Bank, and Franklin and Marshall College.
3. LCHS, MG-126, Folder 2. Civil War photographs, c1863-1865.
4. Bollet A.J. Civil War Medicine: challenges and triumphs. Galen Press, Tucson, Arizona, 2002; pp 28, 30 and 128.
5. LCHS. MG-126, Folder 33. Hans Herr publications.
6. LCHS. MG-126, Folder 22. Family letters, 1862-1870.
7. LCHS. MG-126, Folder 3. Civil War documents; Medical Contract, Letter of recommendation by Examining Board of Surgeons, Special Orders for Medical Assignments, 1863-1864.
8. LCHS. MG-126, Folder 4. Civil War documents and letters; Special Military Orders, Charges of violation of a war command, Notice of a court martial. February-August 1865.
9. LCHS. MG-126, Folder 8. Letters to Dr. Herr, 1865-1870.
10. LCHS. MG-126, Folder 5. Special Military Orders. A letter dated December 9, 1865 of acceptance from the College of Physicians and Surgeons, New York, for medical matriculation. September-December 1865.
11. Historical Collection, Eskind Biomedical Library, Vanderbilt Medical Center, Nashville, Tennessee.
12. LCHS. MG-126, Folder 7. List and price of medical books, 1864-65. Medical lectures at University of Nashville, 1864-65.
13. The Medical and Surgical History of the War of the Rebellion (1861-1865). Washington D.C.; GPO, 1870-88 (Surgical volumes, II and III).
14. LCHS. MG-126, Folder 6. Letters to Martin L. Herr from his mother, Mrs. Maria Herr, c.1865.
15. LCHS. MG-126, Folder 9. Marriage certificate, 1870. Letters from Dr. Herr to "My Dear Rose."
16. Henry S. Wentz, M.D. (tribute to Dr. M.L. Herr, Lancaster New Era, 1902).
17. LCHS. MG-126, Folder 11. Letters from Dr. Martin Herr to Mrs. Martin Herr, 1872-1888.
18. LCHS. MG-126, Folder 28. Correspondence of Dr. M.L. Herr and his children, 1888-1899.
19. LCHS. MG-126, Folder 13. American Medical Association certificate of accreditation of Dr. Herr for use in the Medical Organizations of Europe, 1881. U.S. Dept of State certificate to Dr. M.L. Herr and daughter for safe passage, 1890.

The Rise and Fall of the Thoracoabdominal Incision in Urological Oncology

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Introduction: The thoraco-abdominal incision (TAI) has been used to provide maximal surgical exposure in the management of combined supra- and infra-diaphragmatic pathologic processes such as levels III or IV thrombi of the IVC. The TAI was once a cornerstone of urological oncology but is becoming increasingly uncommon in the era of robotic approaches to the renal hilum, suprahilar lymph node chain, and minimal access chest surgery to the supradiaphragmatic IVC. We wished to explore the complete history of the TAI, from first description to its height of popularity and its current utilization by contemporary urologic oncologists.

Sources and Methods: Primary source material included an interview with Donald Skinner, an early proponent of the TAI. We conducted a novel survey of active urologists in contemporary practice to investigate the usage of the TAI in practice. We reviewed documents from the Second Auxiliary Surgical Group (SASG) from 1941-1944; reports by military surgeon DF Marshall, recognized as performing the first TAI for a genitourinary indication during World War II; and records of the 8055th US Army (MASH) Unit in Korea, credited with improving the battlefield usage of the TAI; and secondary sources from the AUA's WP Didusch Archive, PubMed, and Google Scholar.

Results: The thoraco-abdominal incision (TAI) can originally be traced back to French civilian usage in the latter 19th century, but the TAI was not adopted for battlefield trauma surgery until the Second World War. The safety and effectiveness of the TAI increased greatly during the Korean War with teaching, organized outcomes analyses, and improvement efforts. Trauma indications during these conflicts allowed for later adoption in the field of urologic oncology due to the incision's excellent exposure and became the hallmark of at least one fellowship in urologic oncology. Fewer than 15% of surveyed urologists in the contemporary era have used the TAI in the past 5 years.

Conclusions: The thoracoabdominal incision's later adoption by the civilian population is a testament to the ingenuity and resourcefulness of military surgeons in the former part of the twentieth century. Their contributions should not be forgotten as urological surgery moves towards minimally invasive approach.

Keywords: thoracoabdominal incision, inferior vena cava, military history



ositioning the patient for [a] thoraco-abdominal incision," said the eminent urologic oncologist Donald Skinner, "was the major prerequisite for completing my fellowship in Urologic Oncology at USC."⁽¹⁾ For this article, Skinner spoke to the importance of the thoracoabdominal incision (TAI) to his practice in the twentieth century. What was once a standard approach in the arsenal of some urologic oncologists, however, is now employed by few surgeons in the United States. The TAI originated in the late 19th century, was refined in field trauma hospitals of World War II and the Korean War, and

widened in clinical use in the latter half of the 20th century before falling out of favor at the start of the 21st century. The thoracoabdominal incision is unsurpassed in its ability to provide wide surgical exposure of the major abdominal vessels and renal units. On the left, the incision provides easy access to the heart, aorta, hemidiaphragm, esophagus, stomach, spleen, left adrenal gland and left kidney. From the right side, the inferior vena cava, liver, and right adrenal and kidney are equally accessible. Skinner et al., in their report of 64 patients with IVC thrombi, performed a right thoraco-abdominal incision with 7th or 8th rib

incision “regardless of from which side the tumor arises”.(2) Thoracoabdominal approaches are versatile in treating conditions such as esophageal and gastric cancers, aortic aneurysms, renal malignancies associated with vena cava tumor thrombus, retroperitoneal lymph node dissections, amongst others. We wished to explore the rich history and innovation that led to the development of the TAI and how the approach was taught to generations of urologic surgeons in both times of war and peace (Figure 1).

SOURCES AND METHODS

We performed a novel survey of active urologists on the their usage of the TAI in their practice. We conducted an interview with Donald Skinner on his use of the TAI in fellowship at USC and in his practice over a 40 year career. For military use of the TAI, we reviewed documents from the US Army’s Second Auxiliary Surgical Group (SASG) from 1941-1944; reports by military surgeon DF Marshall; and records of the 8055th US Army (MASH) Unit in Korea, credited with improving the battlefield usage of the TAI. Secondary source materials were obtained from the AUA’s WP Didusch Archive (Linthicum, Maryland), the National Library of Medicine digital archives (Bethesda, Maryland), PubMed, and Google Scholar.

RESULTS

Initial Description

The first mention of a thoracoabdominal incision was in the latter portion of the 19th century. French surgeon Dr. Odilon Lannelongue (1840–1911) described the resection of a right hepatic lobe initially with an abdominal incision. He then extended his incision with removal of the eighth through eleventh ribs and cartilage to enhance exposure of the chest. The postoperative course is unknown and, as with any novel surgical innovation, subsequent surgeons refined the approach. In 1909, Dr. Max Tiegel (1875–1951) employed a two-stage procedure that began with an abdominal exploration that was closed and followed by a separate thoracotomy as the second half of the incision. The patient died shortly after the operation.(3)

Wartime Applications

As the nature of the wounds and the wounded changed from the first to the second world war, surgical care required rapid advances, including adoption of the TAI. Allied surgeons adopted the thoracoabdominal incision as a method to address acute polytrauma of the chest and abdomen. World War I surgeons, in contrast,

struggled with infection and the delays, from 18-24 hours, in getting the acutely injured to the operating room table.(4)



Figure 1. (Left) Odilon Lannelongue (1840-1911) who first described the TAI in practice and (Right) Richard Chute (1900–1978), AUA President 1964-1965, was an early advocate of the TAI in urology as early as 1949.(9)

Thoracic injuries fared poorly and never saw the OR. Trauma surgeons in World War II, however, benefited from enhanced evacuation logistics, perioperative advances including access to whole blood, sulfanilamide, and penicillin, and the training to incorporate the TAI into surgical practice (Figure 2). As a result, mortality from high velocity missiles dropped precipitously during the second world war compared to the first.

The Second Auxiliary Surgical Group, for example, kept records of patients seen and their specific injuries from 1942-1945 in the Mediterranean Theater.(5) This outstanding medical organization reported to the Surgeon General on 8801 severely wounded soldiers in a 921-page report with 550 tables. The SASG recorded that of 903 patients with thoracoabdominal trauma, 247 fatalities were documented, with another 141 without record of whether they survived their injuries. A variety of incisions were used in these instances and, while mortality resulted in 27.3% of soldiers undergoing a formal thoracoabdominal incision, morbidities were also common with 292/903 (32.34%) reporting a complication while another 165 went without any postoperative records (See Table 1).(6)

Medical care during the Korean War (1953–1955) was associated with further reductions in perioperative mortality with the thoracoabdominal incision. The Mobile Army Surgical Hospital 8055 Army Unit in Korea between June 1, 1952, and March 31, 1953, managed 73 thoracic and thoracoabdominal wounds (Figure 3). While only four patients underwent a formal thoracoabdominal incision, they experienced a 0% mortality rate. Wounds

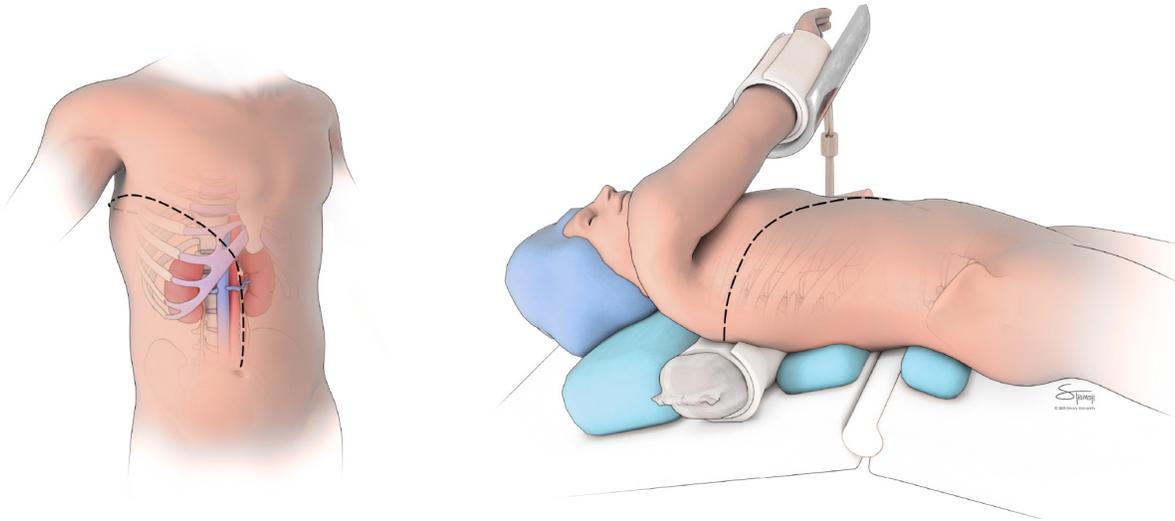


Figure 2. (Left) Right sided thoracoabdominal incision (TAI) coursing in the 7th or 8th intercostal interspace to the paramedian or median line affording simultaneous access to the chest and all abdominal contents. (Right) Intraoperative position for the TAI, positioning which Donald Skinner was necessary to learn to complete a fellowship in GU oncology at USC.

involving both the abdominal and thoracic cavities were again managed through various incisions; however, only 2 of the 73 patients expired, indicating a 3% mortality rate across all incision types (table 2). Methods of injury however also differed greatly from World War II as, instead of high impact missiles causing the polytrauma, the major cause of thoracoabdominal trauma was shell fragments.(7)

The first reported cases of urologic trauma managed with a thoracoabdominal incision were recorded by Donald Forbes Marshall, reflecting on his work in the field in 1944. Marshall described how “a transdiaphragmatic approach proved very satisfactory...

(The incision) was successfully used in 4 cases...and in 2 more cases not included in (this) report.” Marshall employed an incision not unlike that which is still performed today, coursing between the 8th and 9th (or higher) intercostal space to reach the paramedian line or midline and then coursing to below the umbilicus. While Marshall did not discuss his mortality rates, he concluded that “it has been demonstrated that patients with complicated thoraco-renal-abdominal wounds tolerate nephrectomy or repair extremely well by the trans-diaphragmatic approach.”(8)

Incision	Total	Deaths	Percent Mortality (%)
Thoracotomy Only with Transdiaphragmatic Laparotomy	488	91	20.3
Laparotomy Only	202	77	38.1
Thoracotomy, then Laparotomy	144	36	25.0
Laparotomy, then Thoracotomy	74	26	35.1
Thoracotomy with Transdiaphragmatic Procedure followed by Laparotomy	20	7	35.0
Thoracolaparotomy Traversing the Chondral Arch	6	3	50.0
Non-Operated	3	1	33.3
Died before End of Operation	6		

Table 1. Second Auxiliary Surgical Group, Thoracic Surgical Experience in the Mediterranean Theater, 1942-1945, one of the earliest attempts to assess quality of outcomes with detailed operative record keeping.

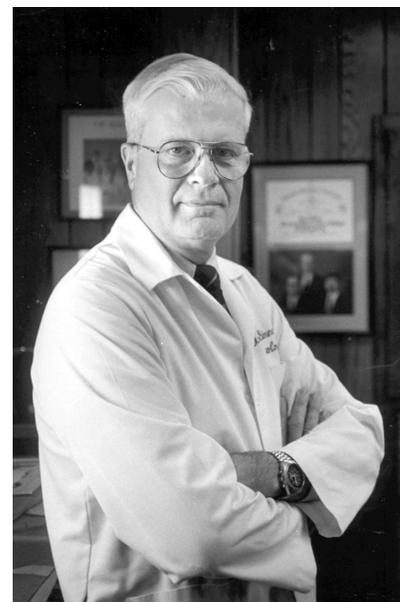


Figure 3. (Left) The Mobile Army Surgical Hospital (MASH) 8055 Army Unit in Korea operated between June 1, 1952, and March 31, 1953, and were a major innovator of surgical approaches to ballistic trauma. Their records of 73 known thoracic and thoracoabdominal wounds managed with the TAI helped transform the use of the TAI for subsequent civilian use. (Courtesy, TogetherWeServed.com) (Right) Donald Skinner, MD who believed positioning a patient for a TAI was a requisite for graduation from his fellowship in urologic oncology at USC. (Courtesy, the William P. Didusch Center for Urologic History, Lithicum, Md)

Widespread Clinical Utilization

Military surgeons returned home from World War II and the Korean War, bringing their operative skills to the civilian population. General surgeons began utilizing the incision for esophageal and gastric cancers in the mid to late 20th century, and urologists incorporated the thoracoabdominal approach for aggressive treatment of renal tumor thrombi into the inferior vena cava. Richard Chute (1900–1978) of Massachusetts General Hospital advocated for thoracoabdominal incisions in radical nephrectomies as early as 1949.(9) The incision provided wide exposure to large kidney tumors while providing access to the intraabdominal vena cava and the cavoatrial junction allowing intrapericardial suprahepatic vascular control. Skinner and colleagues were the first to demonstrate a survival advantage with aggressive resection of all tumor thrombi in patients with renal cell carcinoma in their 1989 *Annals of Surgery* publication “Vena Caval Involvement by Renal Cell Carcinoma Surgical Resection Provides Meaningful Long-Term Survival”(Figure 3).(2) Skinner believed strongly that a firm base of training in general surgery was paramount when attempting the thoracoabdominal incision as familiarity with the chest anatomy allowed for better surgical outcomes. Dr. Skinner said his familiarity came from both his two years of General Surgery Training at Massachusetts General Hospital and his two years as a

surgeon in the Vietnam War.(1)

Contemporary Perspectives

The thoracoabdominal incision was a keystone of urological oncology for advanced retroperitoneal tumors for much of the 20th century. Matured through the crucible of World War II and the Korean War, this incision treated a multitude of conditions with safety and efficacy. A large series of 243 thoracoabdominal incisions for renal cell carcinoma published in 2016 showed an impressive early (30-day) mortality of 8%, an improvement over numbers published in the early half of the twentieth century as well as 43% of patients being free of disease at a 15-month follow-up.(10)

As surgery shifts to an ever more minimally invasive approach, previous tools such as the thoracoabdominal incision are fading into obscurity.(11) In a poll conducted for this manuscript of 24 urologists at a major US academic medical center in 2021, 14/19 (73%) had been taught the thoracoabdominal incision during their training; however, only 3/19 (15%) stated they used the TAI once in the past 5 years. Fewer than half of the respondents (42%) said they would advocate for the teaching of a TAI to a trainee. One potential contribution to this shift is the development of new surgical retractors that provide improved exposure, such as the Liver/Oncology system

retractor by Thompson Surgical Instruments (Traverse City, MI, USA). Such retractors may improve several operative metrics, including operative time, and decrease the inherent morbidity associated with entering the thorax, the pain of rib resection, and management of thoracostomy drainage. The thoracoabdominal incision is still used at some select centers in the United States, but it appears that most urology trainees have little exposure to or familiarity with TAIs, suggesting the incision fading into surgical obscurity.

REFERENCES

1. Skinner DG. Interview on "the Thoracoabdominal Incision." Conducted by Donnenfeld SR and Master V, 1/14/2021.
2. Skinner DG, Pritchett TR, Lieskovsky G, Boyd SD, Stiles QR. Vena Caval Involvement by Renal Cell Carcinoma. Surgical resection provides meaningful long-term survival. *Ann Surg.* 1989 Sep;210(3):387-92; discussion 392-4. doi: 10.1097/00000658-198909000-00014. PMID: 2774709; PMCID: PMC1358008.
3. Heitmiller RF. The Left Thoracoabdominal Incision. *Ann Thorac Surg.* Aug 1988;46(2):250-3. doi:10.1016/s0003-4975(10)65913-9 pp. 250-253.
4. Barr J, Cancio LC, Smith DJ, Bradley MJ, Elster EA. From Trench to Bedside: Military Surgery During World War I Upon Its Centennial. *Military Medicine* 2019; 184: 214.
5. Brewer LA. The Contributions of the Second Auxiliary Surgical Group to Military Surgery During World War II with Special Reference to Thoracic Surgery. *Ann. Surg.* 1983; 197(3): 318-326.
6. Forsee JH. *Forward Surgery of the Severely Wounded: a History of the Activities of the 2nd Auxiliary Surgical Group, 1942-1945*, 1st ed., vol. 1, ser. 1, The Surgeon General, U.S. Army, 1945, pp. 582-583.
7. Dickson JF, Hornberger HR. The Operative Management of Thoracic and Thoracoabdominal wounds in the combat zone in Korea. *Journal of Thoracic and Cardiovascular Surgery*, 1961; 41(3): 318-324, doi:10.1016/s0022-5223(20)31693-7.
8. Marshall DF. Urogenital wounds in an evacuation hospital. *J Urology* 1946; 55(1): 119-132, [https://doi.org/10.1016/s0022-5347\(17\)69886-0](https://doi.org/10.1016/s0022-5347(17)69886-0).
9. Chute R, Soutter L, Kerr WS. The Value of the Thoracoabdominal Incision in the Removal of Kidney Tumors. *N Engl J Med.* 1949;241(24):951-60, doi:10.1056/NEJM194912152412401 pp. 951-960.
10. Raman J, Katz MH, Zorn KC, Large MC, Steinberg GD. Single-Incision Thoracoabdominal Approach With Normothermic Cardiopulmonary Bypass for the Management of Urologic Tumors Invading the Inferior Vena Cava. *Ann Thorac Surg* 2016;101(3):1202-4. doi:10.1016/j.athoracsur.2015.09.021.
11. St John A, Caturegli I, Kubicki NS, Kavic SM. The Rise of Minimally Invasive Surgery: 16 Year Analysis of the Progressive Replacement of Open Surgery with Laparoscopy. *JLS.* 2020;24(4):e2020.00076. doi: 10.4293/JLS.2020.00076. PMID: 33510568; PMCID: PMC7810432.

Refurbishing a Rusty Cystoscope into the Retrospectroscope Award

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Introduction: The AUA Earl Nation Retrospectroscope Award is presented annually for the best presentation and paper at the annual History Forum. The award, bestowed by voting members of the AUA History Committee, includes a personalized and refurbished Brown-Buerger cystoscope and an AUA honorarium. The history of this prestigious award itself, however, is not widely known. Our objective was to identify the persons, vision, and processes required to establish the award and continue its tradition as a highlight of the annual meeting of the AUA.

Sources and Methods: We reviewed contemporaneous documents including AUA Board of Directors' Meeting items, AUA archives, History Committee minutes, and notes by the AUA museum curators. Original newspaper archives were obtained as cited from digital resources. Secondary publications regarding the founding of the AUA History Club, the History of Urology Forum, its creators, and the award itself were obtained from the AUA Archives or from on-line resources as indicated.

Results: The annual History Forum at the American Urologic Association national meeting has been held annually since 1975, modelled after the smaller history meetings moderated by Earl Nation and Frank Bicknell since 1965. The development of an award for the top history paper was proposed at the 2005 meeting and formally approved by the AUA Board of Directors in 2006. During this time the AUA Museum had collected numerous ACMI Brown-Buerger cystoscopes from urologists who were switching to fiberoptic instruments. The Retrospectroscope Award, later named after 1977 AUA President Earl Nation, thus came into existence whereby the winning History Forum presenter would be given one of the donated cystoscopes and a small honorarium. The first Retrospectroscope winner was Shamim Baker for her 2005 paper on the Tuskegee experiment. The prize has been awarded annually for the past 19 years, eventually coming under AUA sponsorship in 2014.

Conclusions: The History of Urology Club at the AUA began in 1965 but an award for the best presentation has only been awarded since 2006. The AUA website lists prior award winners. The History of Urology Forum has significantly increased in popularity from the original 5 presentations in 1965 to 21 podium presentations in 2022 with 14 posters, a keynote "Bicknell Oration", and a Medical Ethics Debate. As competition for the AUA Earl Nation Retrospectroscope Award has increased, contenders must submit a completed manuscript in addition to their presentation.

Keywords: Earl Nation, Frank Bicknell, American Urologic Association History Forum



he first meeting of The American Urological Association (AUA) was held in Saratoga Springs, New York in 1902, organized and led by the AUA's founder, its first President Ramon Guiteras (1858-1917). The Presidential Address continues to be an annual tradition and even then President Guiteras knew that his words would set the tone and scope of what the fledgling organization of the AUA might eventually become. "I feel that I am performing the role of the speaker of the prologue in ancient plays," he said to attendees on a warm, June day with showers in the forecast.(1,2)

"...To precede the actual performance by a statement of the plot or argument of the play... I will therefore in the present instance adapt my prologue to the program of this meeting by reviewing briefly the history of urology from its first steps to the more recent advances that have served to develop this important branch of medicine and surgery and to bring it to its present stage of evolution."(1)

His address, the longest of any President's at the annual meeting, spoke for the importance of history

to the urologic practitioner and for the importance of subsequent organizers to include history in the annual meeting.(3) The AUA supports several awards, bestowed by peers annually to reflect exemplary service, contributions, career development, leadership, and intellect. Among these is the AUA's Retrospectroscope Award given to the individual with the best talk at the AUA History Forum and full length manuscript. The development of the Retrospectroscope Award, however, has not been fully recognized nor its originators credited. Our aim was to explore how the award was initially proposed, developed, and now granted as a highlight of the annual meeting.

SOURCES AND METHODS

Literature regarding the background of the Forum on the History of Urology and AUA Earl Nation Retrospectroscope Award was obtained from the William P. Didusch Center for Urologic History (Linthicum, Maryland). Additional documents included AUA archives of e-mails and notes of former AUA curator Rainer Engel, Board of Directors' (BOD) meeting documents, and secondary resources as indicated. Images were obtained from the Didusch library as cited. Historical newspapers were obtained from microfiche from the Empire State Library Network and their archives at nyshistoricnewspapers.org. Personal interviews were conducted as cited.

RESULTS

The History of Urology Club

The first History of Urology Club met at the 1965 AUA Annual Meeting in the Roosevelt Hotel, New Orleans. The Club was originally conceived by Elmer Belt (1893-1980) and Frank B. Bicknell (1907-1999), the latter having already co-founded the Society for Pediatric Urology (Figure 1). The inaugural meeting lasted 2 hours so as to include five papers (Figure 2).(4,5) Two talks were presented by descendants of their chosen subject: A biography of Hugh Hampton Young (HHY) was discussed by his son, HHY Jr., who was visiting from Los Angeles, and a John Draper spoke on the pioneering contribution of his famous ancestor with the same name, a 19th century urologist. Francis Twinem of New York discussed the origins of the AUA itself and Ronnie Bush, also of New York, reviewed the history of urology in the 1700s. The Club established its international appeal by having as speaker Professor Luis Sanjurjo, who had established the Puerto Rico Urological Association in 1949 and the first urology residency training program in Puerto Rico in the 1950s. Bicknell went on to chair the Club for a decade. In his honor, an annual invited lectureship was established in 2000 and named The Bicknell History of Urology Oration.(4)

Elmer Belt played a pivotal role in the creation of the University of California at Los Angeles (UCLA) School of Medicine and became a pioneer in gender-affirming

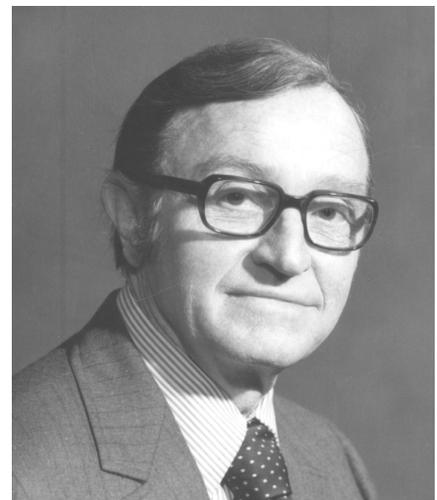
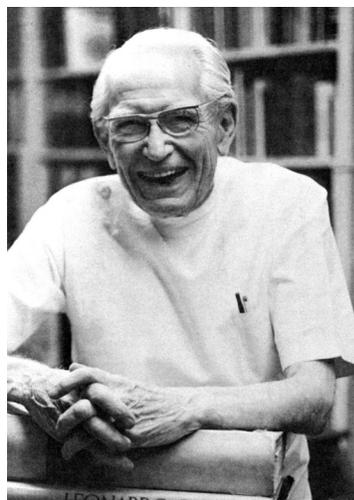
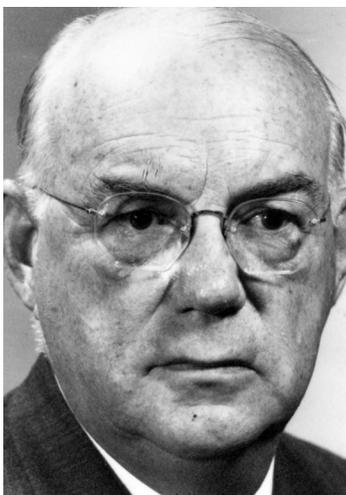


Figure 1. Frank Bicknell (1907-1999) (left) and Elmer Belt (1893-1980) (middle) were internationally recognized pioneers in their field before conceiving of the concept of a special meeting at the AUA entirely dedicated to the history of urology, Now recognized as the History of Urology Forum, its annual Retrospectroscope Award is named after Earl Nation (1910-2008) (right), 1977 AUA President, life long urologic historian and who himself spoke at the 1975 history meeting. (Images courtesy of the William P. Didusch Center of Urologic History, Linthicum, Md)

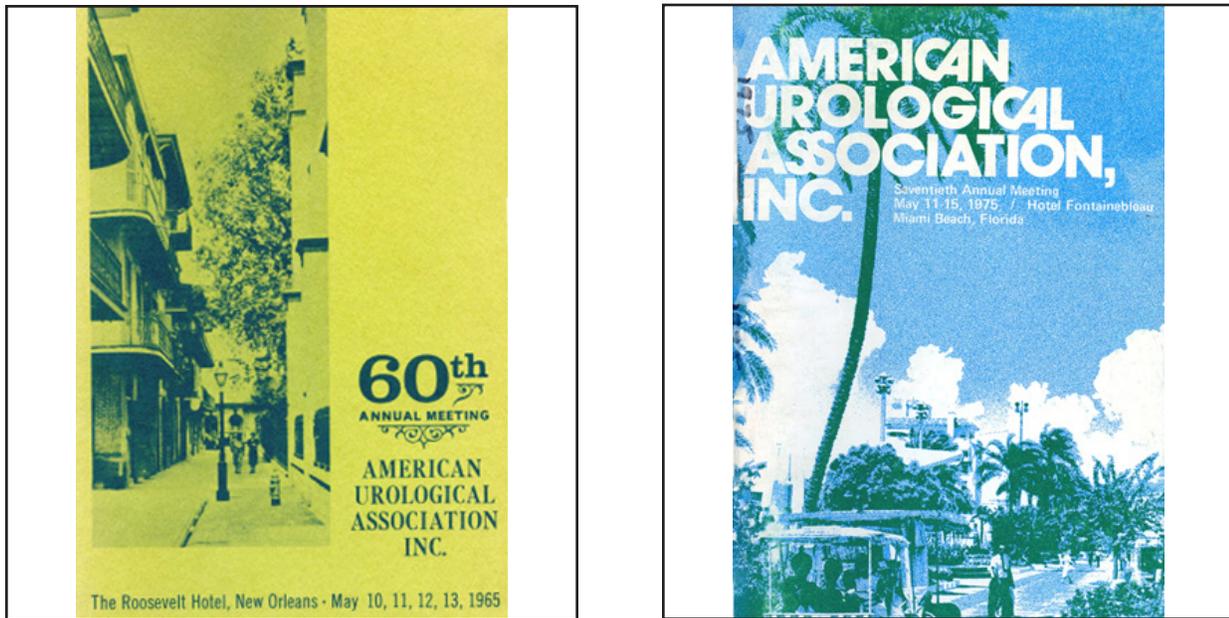


Figure 2. The 1965 (left) and 1975 (right) AUA program books where the first meetings of the History of Urology Club and the Urology History Forum were held. (Images provided by American Urological Association (AUA) archives, Didusch Museum)

surgery, possibly being the first surgeon to perform gender affirming surgery on a regular basis in the United States. He was an avid book collector and had a particular interest in Leonardo da Vinci. His collection of original works by the great master has been regarded as the largest in the United States and was eventually donated to UCLA in 1961 as the Elmer Belt Library of Vinciana, eventually integrated into UCLA's Library Special Collections.(5)

As the History of Urology Club grew in popularity, it became the Forum on the History of Urology at the 1975 annual AUA meeting in Miami held at the famous, but at that time, nearly bankrupt Hotel Fontainebleu (Figure 2). Bicknell still chaired the meeting but he now co-moderated with AUA historian Ralph R. Landes (1911-1989, who served as historian 1965 -1980), publisher of the comprehensive historical treatise *Perspectives in Urology, Vol I.*(6) A total of 3/5 (60%) of papers at the Miami meeting were by New Yorkers but on varied topics including biographies on the English surgeon Percival Potts (1714-1788) and on 1942 AUA President Oswald Lowsley (1885-1955). A history of the cold knife punch was given by Earl Nation (1910-2008), who would serve as President of the AUA itself in 1977.

The Forum on the History of Urology continued to grow. In 1978, 11 papers were presented, increasing to 15 in 1991. In 1999, a total of 20/50 abstracts were selected for presentation, an acceptance rate of 40%. By

2023, 36/115 (31%) abstracts were accepted including 21 for a podium presentation and 14 for the growing poster gallery.

A Need for Recognition

During the 2005 AUA meeting in San Antonio, Shamim Baker, a research coordinator at the Urological Sciences Research Foundation (Los Angeles), gave the presentation "Untreated Syphilis in the Negro Male. A Closure Comes to the Tuskegee Study".(7) The Tuskegee Study was an observational trial in rural Alabama with an aim to understand the natural history of untreated syphilis, as there were no effective therapies for syphilis when the study began. The study was originally designed to last 6-8 months but continued from 1932 through 1972. The effective treatment of syphilis, even by a single injection of penicillin, was demonstrated in 1947. The Tuskegee researchers, however, withheld penicillin from a large proportion of men who had treatable, early stage syphilis without their consent.(8) Such controversies were eventually revealed and led to congressional action that ensured protections for those participating in research and ethical and medical standards by which all research must be conducted. Baker's presentation was considered "stunning" by Forum directors and led to an effort to recognize the Forum's best presentations.(9)



Figure 3. Photograph taken at the AUA Museum in Baltimore in 2001 of AUA Curator Rainer Engel (left) with New York urologist John R Herman admiring the vast number and iterations of cystoscopes in the museum at that time. Herman's book *Urology: View through the Retrospectroscope* served as the inspiration for the name of the Earl Nation Retrospectroscope Award.(11) (Images courtesy of the William P. Didusch Center of Urologic History)

The Award and Its Name

The AUA history curator, Rainer Engel (1933-2018, curatorship 1993-2016), worked to bring the concept of a History Forum award to material fruition (Figure 3).(9) He had a detailed knowledge of the enormous inventory and archives of the AUA museum and was responsible for bringing the museum to its current status as a world class repository. Engel recalled that the AUA had received many donated Brown-Buerger cystoscopes from urologists who had been transitioning to more modern, fiberoptic instruments. He recognized that the Brown-Buerger cystoscope was the original 'workhorse' of urology with a significant history due to the sheer volume of scopes that still existed. Prior to the Brown-Buerger scope, many of the original cystoscopes were not practical to use as they often broke and needed to be sent to Germany for servicing. Reinhold Wappler (1870-1932) established a new business in 1900 to address the unmet need of rapidly servicing cystoscopes by creating the Wappler Electric Corporation in New York. Tilden Brown (1853-1910) worked with Bausch & Lomb (Rochester, New York) and Wappler to develop a lens system that created a larger field of vision and likely the first double-catheterizing cystoscope. Leo Buerger

(1879-1943) also worked with Wappler to design a cystoscope that allowed for different sheaths, lenses, and an obturator which gave urologists the ability to find and treat a variety of GU conditions. The 'Brown-Buerger' cystoscope was thereby created and named as a recognition of the significant contributions by both men in its development. Wappler eventually merged his companies into the American Cystoscope Makers, Incorporated (ACMI) in 1904 and produced the Brown-Buerger cystoscope on a large scale. The Brown-Buerger cystoscope was the first widely adopted cystoscope manufactured and serviced in the United States and served as the urologists' primary instrument until fiber optics made this scope obsolete.(13) Engel felt, therefore, that a Brown-Buerger cystoscope would be a fitting and ideal annual award for the best presentation at the AUA History Forum (Figure 4).(9)

New awards, though, also require a name. As Engel wrote in a 2006 discussion,

"... the History Committee of the AUA endeavored to create a new role for these old instruments [Brown-Buerger cystoscopes]. At one of our meetings, we discussed the possibility to give one as a prize for the best presentation at the annual



Figure 4. (Left) A refurbished Brown-Buerger cystoscope given to the winning History Forum presentation and paper, along with an honorarium, as the Earl Nation Retrospectroscope award. The particular instrument at top left was the 2022 award to Shreeya Popat bestowed at the Chicago AUA in 2023. (Right) The first Retrospectroscope award winner, Shamim M. Baker for her presentation "Untreated Syphilis in the Negro Male" A Closure Comes to the Tuskegee Study" given at the 2005 AUA meeting in San Antonio. (Images courtesy of the William P. Didusch Center of Urologic History)

History Forum; Dan Dietrick (Mid-Atlantic Section Historian) came up with a catchy name for the award: 'The Rusty Cystoscope', in contrast to the 'Gold Cystoscope' [Ed: an award already established by the AUA for significant contributions by a Urologist within 10 years of graduation]. The task of finding support for such a 'prestigious' named award fell to me. Since ACMI had produced all these cystoscopes, they were the obvious choice, and I started to investigate this possibility. Meeting with some of the top people of the company at a reception at San Antonio, I felt our request would fall on fertile ground.

"About a month later, during a reception celebrating the return of our annual exhibit from San Antonio back to AUA Headquarters in Baltimore, I met with ACMI's manager of medical education, Tracey Sanford. Very receptive to the project of such an award, she (not surprisingly) did not think our (working) title of 'The Rusty Cystoscope' would fly too well. Sure enough, it was rejected by ACMI as too 'tarnished'. And then our own Tupper Stevens came up with the solution as we looked at some old booklets in our hands. The museum (owned) numerous copies of a beautiful, small booklet on some of urology's history,

written by John Herman, MD, who was a urologist in NY (Figures 3 and 5). He called it *Urology. A View through the Retrospectroscope*. The first printing was quickly sold out and ACMI reprinted it." (9)

Engel made the decision that the best history presentation would therefore win the refurbished cystoscope, "so beautiful it looks new", a copy of Herman's book, a \$1000 honorarium from Gyrus/ACMI, and it would be called the Retrospectroscope Award.(6) After 2014, the honorarium was bestowed by the AUA. A 2006 e-mail from ACMI manager of Medical Education, Tracey Sanford, to Engel showed the enthusiasm for the new award at ACMI:

'I am thrilled with the name ...suggested for the award. Yes, no name could be better suited in light of Dr. Herman's book...and ACMI's past support of the book's publication. I have shared it with Sandra Tilden, our VP of Marketing and she is pleased with the title.'(10)

In 2006, the AUA Board of Directors approved The Retrospectroscope Award.(11) The spirit of the award was to create a recognition of how new techniques, instruments,

basic science, and changes in thinking have influenced the field of urology. At the 2006 AUA meeting in Atlanta, the first AUA Retrospectroscope award was presented to Baker for her 2005 Tuskegee paper during the Forum on the History of Urology (Figure 4). The tradition of bestowing the Retrospectroscope award at the following year's meeting was thus established.

The award underwent one additional name change in 2008, becoming the AUA Earl Nation Retrospectroscope Award.(12) Nation, who served as 1977 AUA President, was thereby recognized for his life-long passion for medical history and his over 100 articles on the subject (See Figure 1). He was co-founder of the American Osler Society, an organization dedicated to medical history and Oslerian principles which is still very active today.(13) Nation received the Ramon Guiteras Award in 2002 for his outstanding contributions to the art and science of urology.(14)

CONCLUSIONS

The AUA Earl Nation Retrospectroscope Award is now bestowed each year for the best presentation, either podium or poster, and submitted full length manuscript from the previous year's History of Urology Forum, as judged by the AUA History of Urology Committee. The Award was established in 2005 with both AUA and industry support and includes a personalized and refurbished Brown-Buerger cystoscope and an honorarium. The award is a reflection of the high quality work provided to the AUA community at the forum and the popularity of urologic history as an important component of the practicing urologist.

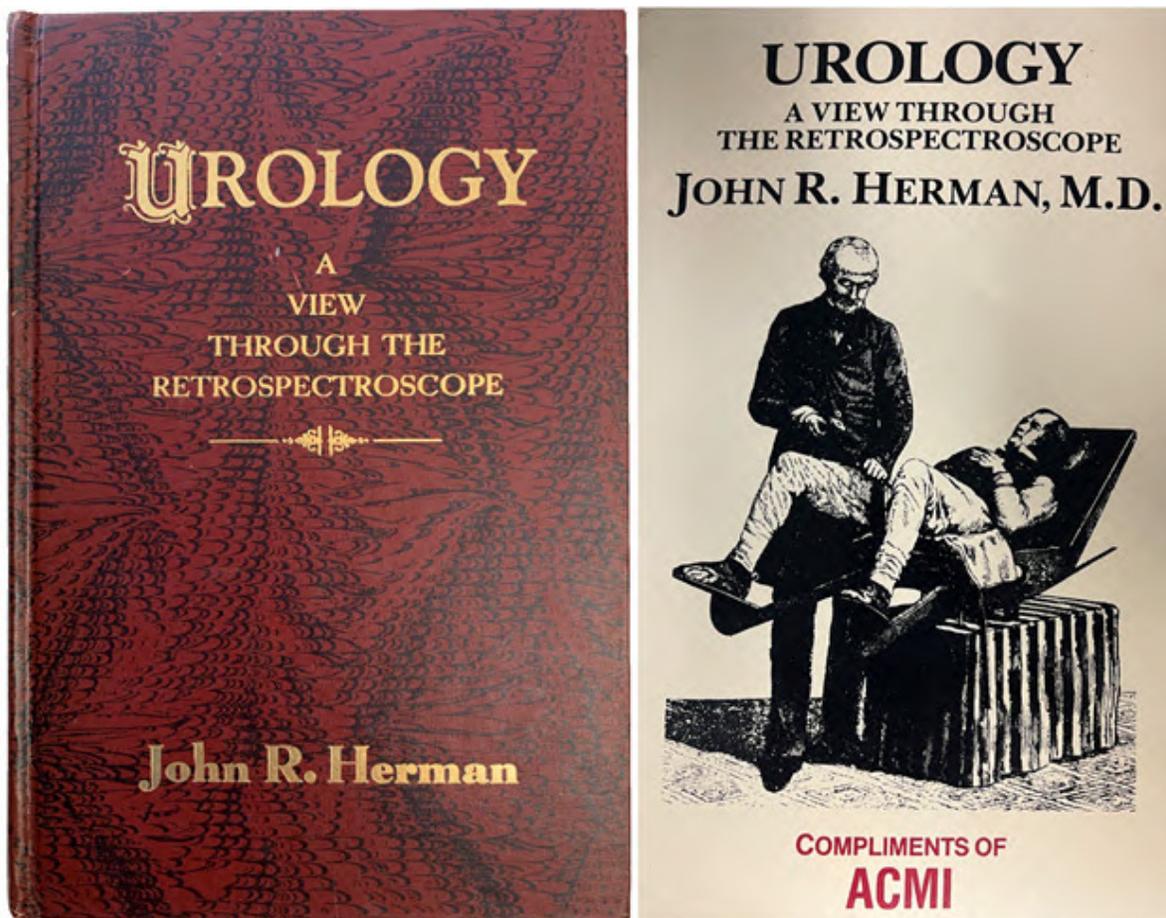


Figure 5. Book covers of *Urology; a View through the Retrospectroscope*. by JR Herman with the first edition cover on the left and the reprint version sponsored by Gyrus-ACMI on the right. Images courtesy of the William P. Didusch Center of Urologic History.(15)

REFERENCES

1. Guiteras R. The Evolution of Urology. *NY Med J* 1902; 76: 617-622.
2. Forecast, *The Argus*, Albany, June 12-14, 1902.
3. Saji AA, Passarelli R, Dixon A, Phillips JL. Sentiment Analysis and Predictors of Optimism: The AUA Presidential Addresses, 1902-2019. *Int J Urol Hist* 2021; 1:47-54, doi: 10.53101/IJUH71219.
4. Patel, Sutchin R., David A. Bloom, and Anthony A. Caldamone. "Frank B. Bicknell: Pioneer in Pediatric Urology and Founder of the American Urological Association History Forum." *Urology* 2023; 173: 1-4.
5. Zagria. "Elmer Belt (1893 - 1980) Urologist, Pioneer Sex-change Surgeon." *A Gender Variance Who's Who*, 1 Feb. 2019, zagria.blogspot.com/2019/03/elmer-belt-1893-1980-urologist-pioneer.html. Accessed April 1, 2023.
6. Landes RR, Bush RB, Zoragniotti AW. *Perspectives in Urology: The Official American Urological Association History of Urology*. Nutley, N.J: Roche Laboratories, 1976.
7. Baker SM, Brawley OW, Marks LS. "Effects of Untreated Syphilis in the Negro Male, 1932 to 1972: A Closure Comes to the Tuskegee Study, 2004." *Urology* 2006; 65: 1259-62.
8. White R. Unraveling the Tuskegee Study of Untreated Syphilis. *J Amer Med Assoc (JAMA)* 2000; 160(5):585-598, doi: 10.1001/archinte.160.5.585).
9. Engel R. (2006) Notes on "The Retrospectroscope Award". American Urological Association Archives William P. Didusch Center of Urologic History, Linthicum, Md.
10. Sanford T. "Retrospectroscoe Award." E-mail message to Rainer Engel, September 26, 2005. American Urological Association Archives William P. Didusch Center of Urologic History, Linthicum, Md.
11. "AUA Board of Directors Action Item." February 2008. American Urological Association Archives William P. Didusch Center of Urologic History, Linthicum, Md.
12. "Earl F. Nation (1910-2008)," *People in Urology*, April 1, 2023, <https://urologichistory.museum/histories/people-in-urology/n/earl-f-nation>.
13. "Earl F. Nation Collection: Finding Aid," Online Archive of California, April 1 2023, https://oac.cdlib.org/findaid/ark:/13030/c8gh9q21/entire_text/.
14. "Ramon Guiteras Award," The AUA Awards Program, April 1, 2023, <https://api.auanet.org/Content/awardsarchive>.
15. Herman, JR. *Urology; a View through the Retrospectroscope*. Hagerstown, Md: Harper & Row, 1973.