

Two (Almost) Forgotten Soldiers: The Story of Ludwig Hussar and Leon Schlossberg

ABSTRACT: *World War II ended nearly six decades ago, yet the influence and changes as a direct of the grisly conflict can still be felt today. Despite great devastation and tragedy, there were many positive medical innovations created to assist in the care of the wounded. When history is noted regarding the origins of contemporary ocular prosthetics, there is usually significant mention of WWII and the influence it had on the profession of ophthalmology.*

For this article, the author wishes to introduce two men, who diligently served their country in WWII while working with those injured in combat. Ludwig K. Hussar and Leon Schlossberg came from two different backgrounds and, following the war, went on to separate, meaningful careers. Their contributions to ophthalmology typify the obscure, isolated and exceptionally rewarding work Ophthalmologists perform

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THE JOURNEY OF LUDWIG HUSSAR

The Appalachian Mountains is a general name for the numerous ranges that run from the Gulf Coast in Alabama through the eastern portion of North America. In the United States, the word Appalachian is synonymous for rural living and isolation. Yet, in the heart of this rugged coal mining region, Ludwig Hussar settled in the late 1930s to hone his craft. He was the first true Ophthalmologist who lived and practiced ophthalmology in the state of West Virginia. (Figure 1 and 2)

Ludwig Karl Hussar was born March 16, 1905, in a small village in Hungary. He was the third child born to Anna (Litchner) and Karl Hussar, and spent his adolescence in the Yugoslavian Army.

After his military service, Ludwig continued his education and became a dentist, practicing dentistry in the city of Belgrade. In the summer of 1939, Ludwig elected to visit his uncle who lived in Mt. Hope, West Virginia. The short visit turned into a permanent stay. With his country having political problems and threats from Germany, Ludwig felt that there were better opportunities in the United States than back home. While still an immigrant and using broken English, Ludwig enlisted in the U.S. Army on September 8, 1942. While serving in the Army, Ludwig became a U.S. citizen.

After basic training, Ludwig used his knowledge and skills as a dentist and worked primarily as a dental technician at the 74th General Hospital outside London. It was in this particular hospital that Ludwig Hussar was



FIGURE 1 Ludwig K. Hussar

exposed to the new plastic techniques being taught to the military's dental personnel. During the war, Ludwig also utilized his command of five languages while working with Radio Free Europe. He served in the Army from 1942 to 1945, obtaining the rank of E-technician, 3rd grade. Ludwig was awarded the Good Conduct Medal (April 1944) and the European-African-Middle Eastern Service Ribbon.

With the completion of his U.S. military service, Ludwig returned to West Virginia. Finding it difficult to convert his European dental skills to the U.S. requirements, Ludwig concentrated on the ocular prosthetics training he received in the Army.

West Virginia is a difficult place to work as a health care professional; this was especially true during the 1940s. Oak Hill, West Virginia, was particularly difficult. Situated 10 miles north of Beckley, Oak Hill secluded in the foothills of the coal region. Prior to Ludwig's arrival, West Virginia never had any tradition of custom ocular prosthetic work, in plastic or glass. Residents from this region had to travel to larger cities in nearby states or settle individual to make custom eyes was a welcome occupation to this unglamorous area.

Ludwig Hussar was a member of the American

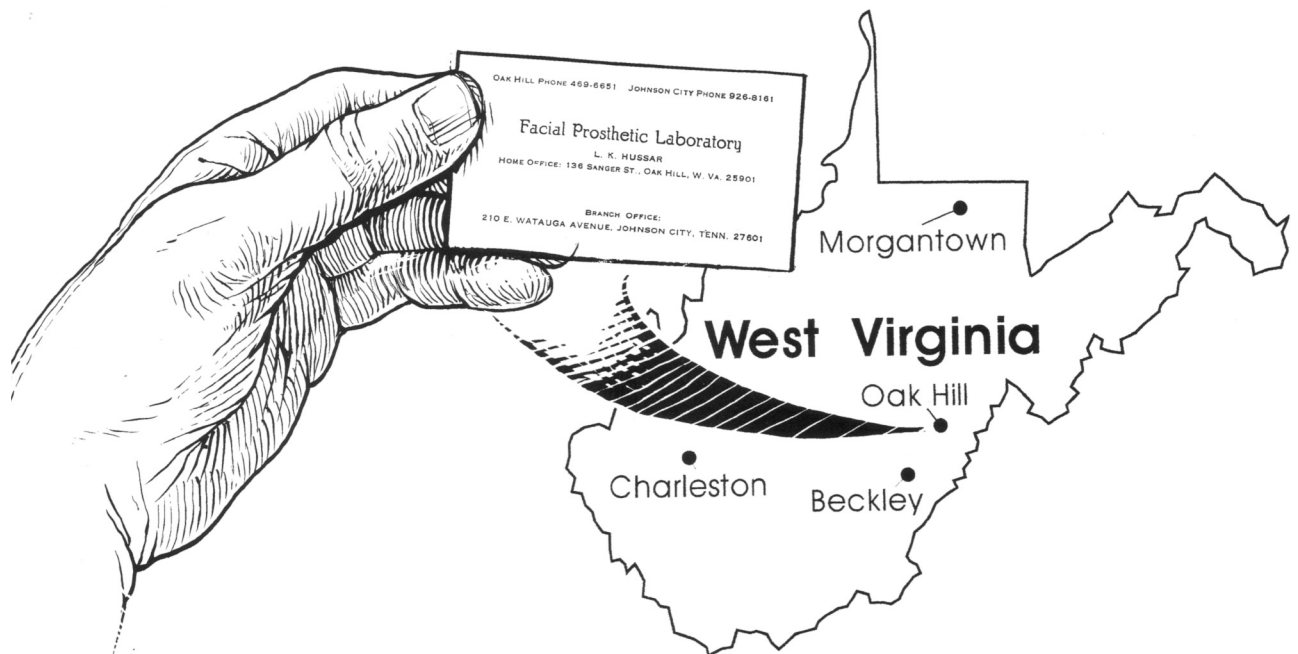


FIGURE 2 Map of West Virginia

Society of Ocularists (ASO), joining the society in 1975. Ludwig attended numerous ASO conferences, but he worked in relative obscurity. This is due in part to the isolation of West Virginia, and the fact that Ludwig felt more comfortable working in his craft. Working from his home, Ludwig practiced ophthalmology for almost 50 years. With European craftsmanship, he carefully molded, hand painted and impression-fit prosthetic eyes. It was not uncommon for Ludwig to spend days working on an individual, particularly on the more complex orbital prostheses for the exenterated socket. He also maintained a small satellite office in Johnson City, Tennessee.

It is Ludwig Hussar's perseverance, dedication and obscurity that has placed him in a position of interest. He may represent one of the purest forms of ophthalmology, truly helping individuals without regard to monetary rewards or public adulation. Ludwig is one of the lesser-known members of the small fraternity of early American Ocularists who developed and molded the profession to the standards that are expected today. Ludwig Hussar died in 1992 at the age of 87. He completed his life's journey just like he performed his life's work, quietly and with dignity.

LEON SCHLOSSBERG, THE ANATOMIST

Leon Schlossberg (1914-1999) was born in Baltimore, Maryland. He attended Baltimore City College and studied art at the Maryland Institute of Art. Leon also studied with Max Brodel in the Medical Illustration (Arts as Applied to Medicine) Department at Johns Hopkins Medical School. Brodel is considered the father of modern medical illustration. After completing basic training, Leon became the Navy's first medical illustrator when he was stationed at Bethesda Naval Hospital. (Figure 3)

It was while he was employed with the Navy's General Medical Department that the Dental Department asked for his artistic assistance in working with prosthetics.

In 1944, the first of several articles was written regarding the work Leon and Dr. Phelps Murphy words, he describes his illustration and the Navy's work outlined in the article, "Eye Replacement by Acrylic Maxillofacial Prosthesis." (Figure 4)

"The original illustration that accompanies this historical review of the development of the Navy arti-



FIGURE 3 Lt. Leon Schlossberg, USN, Bethesda, MD, 1944

ficial eye was first used in the December 1944 issue of the Naval Medical Bulletin.

The development of the artificial eye began at the Naval Medical Center in Bethesda, Maryland about 1942. Phelps Murphy, D.D.S. of the Naval Dental School had been doing some experiments on personnel in the direction of injecting the eye socket with a flexible mold material dentists used in their work and then transferred the flexible mold into a rigid positive that they anticipated would be the basis onto which an artist would paint the iris and sclera. Upon realizing that the palpebra fissure opening was larger than the good eye, further work would have to be done to make the prostheses acceptable. It was at this point the dental school realized they needed help possibly from the Medical Department to which I was attached.

In consultation with one patient I realized that the plastic blank was too large. I asked that the blank be reduced in size to twenty-two millimeters, the size of a human eye. This maneuver produced a satisfactory result. Collaboration continued utilizing my knowledge of the anatomical-artistic characteristics of the eye.

The art captions of the accompany historical illustration will suffice to complete the story of the development of the Navy plastic eye."

Leon Schlossberg

OCULAR REPLACEMENT BY ACRYLIC PROSTHESIS

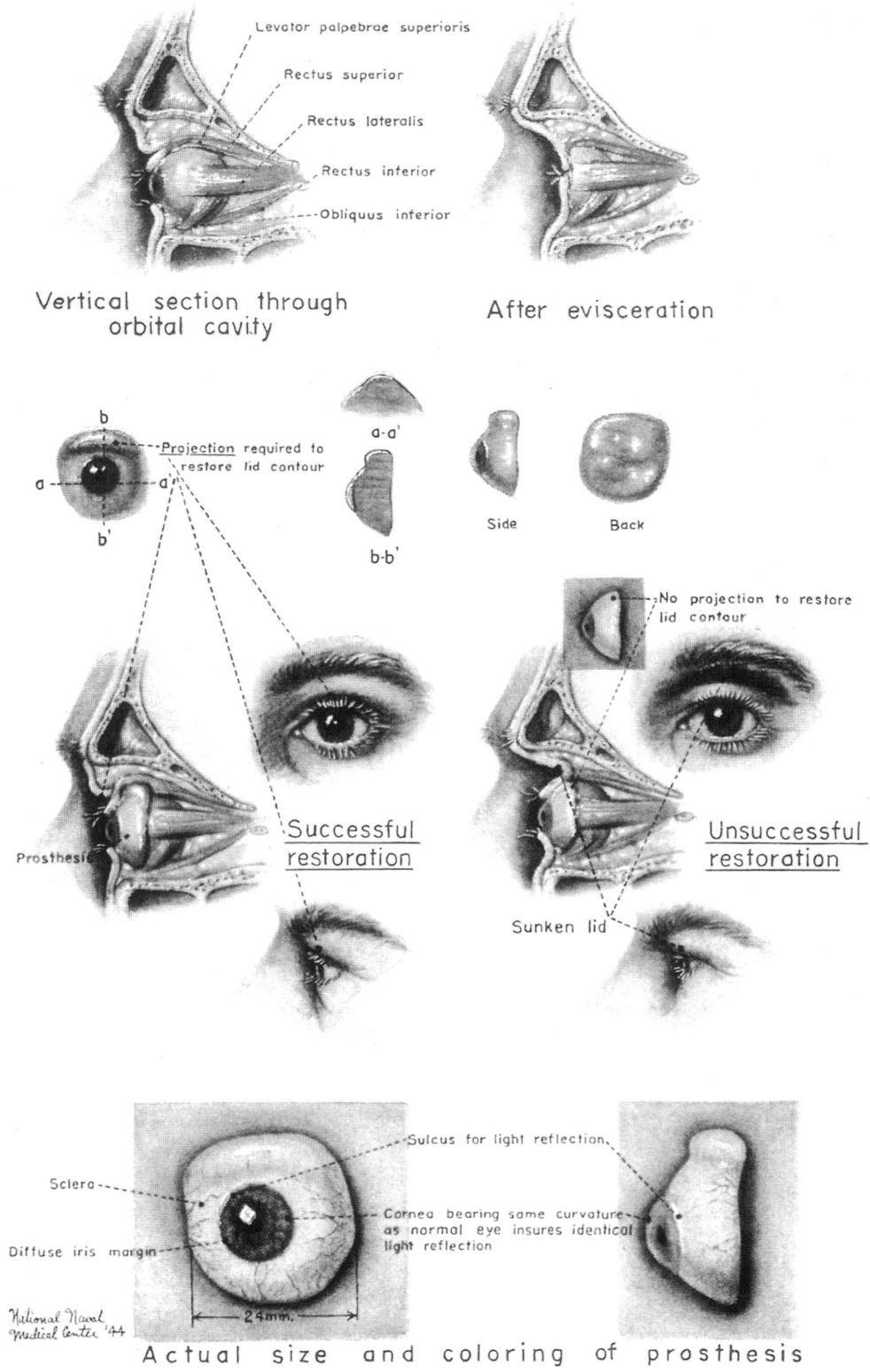


FIGURE 4 Illustration from USN Medical Bulletin, 1944

Throughout the essay, Dr. Murphy and Leon give detailed information regarding the process of fabricating artificial eyes, that includes painting the iris on watercolor paper. This was unique. The cornerstone of this landmark article is built around Leon's beautiful and very conceptual illustration. Keep in mind, very little printed (or even illustrated) regarding the tightly kept "secrets" or ocular prosthetics in the 1940s. In describing Leon's illustration, certified medical illustrator Craig Luce notes:

"For the purpose of this illustration, Leon's treatment is accurate, sculpture and efficient. Leon's genius is in the clear teaching and incredible rendering of detailed anatomy. A true student of the master (Max Brodel)."

Having never before seen this particular illustration by Mr. Schlossberg, colleague and friend Ranice W. Crosby, Associate Professor and Director Emerita of the Johns Hopkins University School of Medicine offered the following observations:

"All elements of creative invention, authority, and order in presenting facts and capturing realism with subtle aesthetic appeal are in this particular illustration."

The new ocular prostheses design is presented with its various surfaces and its essential projecting element clearly labeled. Schlossberg depicts the new prosthesis in place creating a successful restoration. In contrast, he reminds us in a comparison figure that the commonly used prostheses leaves the upper lid deeply sunken, a totally unsuccessful result.

Not only an illustrator and prosthetic designer, Schlossberg shows a frontal and lateral view of the successful ocular prostheses with the varying curvatures insuring light reflection."

One doesn't have to look long to feel that, visually, Leon Schlossberg's article and illustration may have been an influence to Lee Allen's well respected article on the Modified Impression Technique that was published more than twenty-five years later. Lee Allen may be considered the father of modern ocularists. Lee Allen and Leon Schlossberg knew each other, and both were prominent illustrators at two respected medical schools; the University of Iowa and John Hopkins University. Lee uses Leon's article in his noted references, plus the fact that both Lee Allen and Leon Schlossberg were presidents of the American Medical Illustrators in 1956 and 1955, respectively. It

is not a stretch to say that the Navy's work from 1944 on had a direct influence on the way many people fabricate prostheses today.

The success and publicity of Leons work in prosthetics led to the development of a Prosthetic Appliance Board created by the Navy Bureau of Medicine and Surgery. Leon sat on the board, that worked on other prosthetic devices. The board also trained other individuals who would be dispatched to other naval bases.

After his military career, Leon returned to Baltimore, where he continued his relationship with Johns Hopkins for over 50 years. He was an active charter member to the American Medical Illustrators (AMI), and in 1990 he was presented with the AMI's highest honor, the Lifetime Achievement Award. (Figure 5)

In 1994, Leon Schlossberg was awarded an honorary doctoral degree from Johns Hopkins for his lifetime contribution to the university. After leaving Bethesda Naval Hospital, Leon never again worked in or illustrated prosthetics. In fact, concentrating on cardiology and urology, he did limited illustrations with ophthalmology, with the exceptions of his anatomy charts and the Anatomy of the Eye series with Dr. Nicholas Iliff from the book, The Johns Hopkins Atlas of Human Functional Anatomy. Leon became a world-renowned medical artist and illustrated thousands of commissions. Along with his doctoral degree, Leon received countless awards for his gifted artistry before he passed away in December, 1999.

CONCLUSION

It is interesting to speculate what Leon would have done if he had continued on the ocular prosthetic path, like so many serviceman who were introduced and trained by the military to fashion artificial eyes. One could also speculate on Ludwig Hussar, and what he would have done had he stayed in war-torn Europe. Had he continued working with prosthetics, would Leon Schlossberg's incredible artistic skills have transferred into great ocular prosthetics, like his colleague, Lee Allen? Would Ludwig Hussar have continued to practice dentistry if he had been given the permission? These are answers we'll never know. We also will never know the names of all the craftsmen who somehow contributed to a new idea or shared a

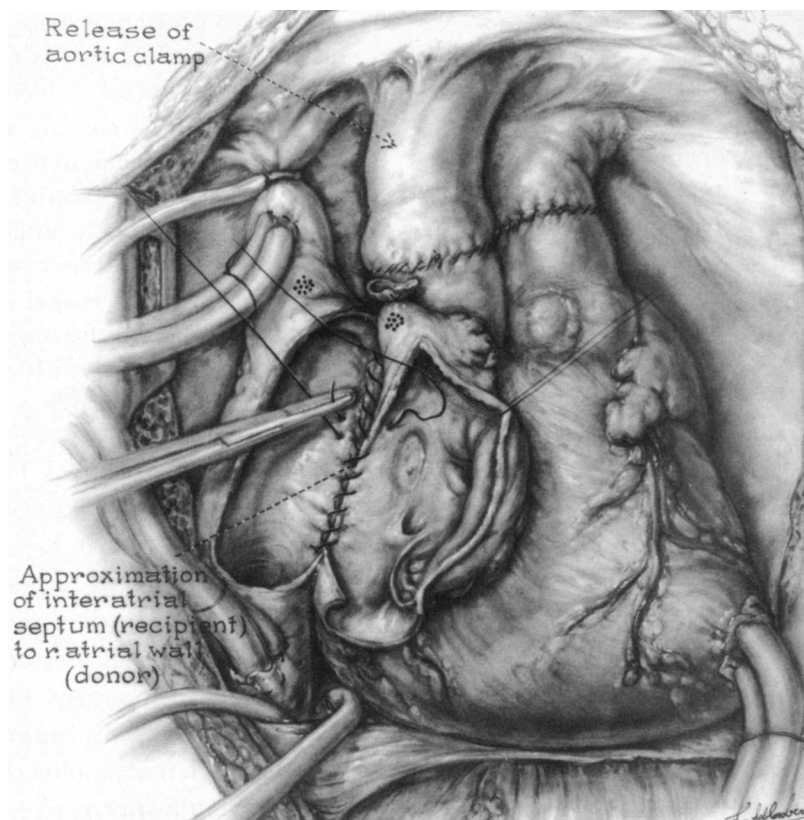


FIGURE 5 Illustration from 1969 for which Leon worked on Johns Hopkins' first heart transplant

technique that helped evolve the modern standards of today's ophthalmology.

Even 50 years after Leon Schlossberg worked on Navy servicemen, he felt that ocular prosthetics was the most meaningful work he had ever done. For all of us affiliated one way or another with ophthalmology, we are truly privileged to be in the profession that impacts a person's life and make a difference in this world.

REFERENCES

1. Max Brodel. *The Man Who Put Art Into Medicine*. Ranice W. Crosby and John Cody, Springer-Verlag, New York, 1991.
2. *Surgical Anatomy of the Orbit*. Barry M. Zide and Glenn W. Jelks, illustrations by Craig Luce. Raven Press, New York, 1985.
3. U.S. Naval Medical Bulletin. *Eye Replacement by Acrylic Maxillofacial Prostheses*. Phelps J. Murphy,

- Lieutenant Commander (DC) U.S. Naval Reserve and Leon Schossberg, Lieutenant H-V (S) U.S. Naval Reserve. Volume 43, No. 6, December 1944; 1085-1099.
4. The Anatomical Products Company, Skokie, Illinois. Charts and Posters, *The Johns Hopkins Anatomy Chart Series*.
5. Modified impression method of artificial eye fitting. L. Allen and H.E. Webster. *American Journal of Ophthalmology*, 1969, 67: 189-218.
6. Military Surgeon: *Eye Replacement by Acrylic Maxillofacial Prostheses*. Lieutenant Commander Phelps J. Murphy, D.D., U.S.N.R. and Leon Schlossberg, H-V(S), U.S.N.R. 1945, 96: 469-478.
7. *The Johns Hopkins Atlas of Human Functional Anatomy*. John Hopkins University Press, 1972.
8. Personal interview/correspondence with Leon Schlossberg, Johns Hopkins, Art as applied to medicine. Baltimore, Maryland. April 1997 until

1999.

9. *The Journal of Biocommunication (JBC)*. *Leon Schlossberg: A Career in Retrospect*. Anne R. Altermus, M.A. Volume 18, No. 3, 1991: 7-19.

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