

Ghost Army: Deceptive Communication
and the Power of Illusion

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In July, I began my National History Day project by looking for a topic concerning my greatest interest area, the military. While there were many appealing possibilities, I wanted a lesser known topic with a strong theme connection. After an extensive search, I knew I had found the perfect topic after watching an incredible film clip showing soldiers lifting and moving a realistic looking inflatable tank during World War II. They were part of the Ghost Army, a top secret U.S. Army unit that impersonated Allied troops and performed deceptions to mislead the enemy. I was immediately hooked and couldn't wait to learn more.

I began research by obtaining books and journal articles to gain a strong understanding of my topic. One specific book, *The Ghost Army of World War II: How One Top-secret Unit Deceived the Enemy with Inflatable Tanks, Sound Effects, and Other Audacious Fakery*, by Rick Beyer and Elizabeth Sayles, provided a comprehensive account of my topic and sparked an ongoing email exchange and personal interview with Mr. Beyer, who directed me to primary sources at the National Archives, and connected me with a 97-year-old Ghost Army veteran to interview. Also, the University of Northern Iowa librarian helped me find the few available newspaper articles from the time period on this top secret topic, and "The Official History of the 23rd Headquarters Special Troops," by Lt. Fred Fox, which provided a first-hand account of Ghost Army deceptions. Next, I found excellent documents and photographs online from the UK National Archives, the Ingersoll Collection at Boston University, and the U.S. Army. Additionally, I obtained numerous oral narratives from the Ghost Army Legacy Project website, which provided personal perspectives of Ghost Army veterans

and gave meaning to newsreel footage of Ghost Army visual deceptions. Later, I interviewed Dr. Christopher Hamner, a former U.S. Army War College instructor, who helped me better understand how the Ghost Army influenced the use of deception in the military today. Finally, after the district contest, I interviewed author Elizabeth Sayles about her late father's experiences in the Ghost Army.

With my research complete, I began creating my project. I picked the individual website category because I felt I could best portray my topic through a combination of pictures, documents, quotes, audio clips, video clips, and my own words. I created my project using NHD WebCentral, used green and white to represent the army and ghosts, and put trees in my header since many Ghost Army's deceptions occurred in heavily wooded areas.

My thesis presents a strong argument concerning the Ghost Army and its significance in history. From 1944-1945, the U.S. Army 23rd Headquarters Special Troops, a top secret group known as the Ghost Army, used a wide array of deceptive communication tactics in over twenty military operations. Through masterful miscommunication, the Ghost Army successfully deceived German troops, which aided Allied advancement to victory in World War II, saved lives, and demonstrated the critical role of deception in achieving military success.

Annotated Bibliography

Primary Sources

Manuscript

Fox, Lt. Fred. "Official History of the 23rd Headquarters Special Troops." *National Archives and Records Administration*, Record Group 407, Sept. 1945.

Lt. Fred Fox wrote this very descriptive manuscript in September 1945 about the 23rd Headquarters Special Troops, better known as the Ghost Army. It included detailed descriptions, diagrams, and photographs concerning the organization of the Ghost Army and its twenty-one successful deceptions. It is considered the most important primary source document about the Ghost Army and, as a result, provided me with important information, quotes, and visuals for my website.

Archival Collections

"Ingersoll Collection." Howard Gotlieb Archival Research Center, Boston University.

The Ingersoll Collection contained pictures and documents concerning the life and service of Captain Ralph Ingersoll, who was the mastermind behind the creation of the 23rd Headquarters Special Troops, better known as the Ghost Army. As a result, I used several pictures and the knowledge I gained from Ingersoll's collection in the construction of the Ghost Army page of my website.

"The National Archives: World War II: Mediterranean & N.Africa." *The National Archives*, Kew, Surrey TW9 4DU, 9 July 2007, www.nationalarchives.gov.uk/education/worldwar2/theatres-of-war/mediterranean/investigation/monty/sources/docs/1/.

The UK National Archives had an amazing collection concerning British deceptions during World War II that included photographs of inflatable fake tanks and military bases that were only props. Because Captain Ralph Ingersoll and Colonel Billy Harris got their idea for the Ghost Army from working with British deception units early in the war, I included many of these photographs and some documents from this collection in the lead up part of my website.

Interviews

Berry, Spike. Interview by Rick Beyer and Jacqueline Sheridan. *Ghost Army Legacy Project*, 2005, <http://www.ghostarmylegacyproject.org/selected-interviews.html>. Accessed 1 Dec. 2020.

This interview with Ghost Army soldier Spike Berry helped me better understand the mission of the Ghost Army because it provided very detailed information about his time serving with the 23rd Headquarters Special Troops where he carried out radio deceptions. Berry's explanation of radio deception and the critical role it played in World War II was especially helpful, so I used an excerpt of it on the radio deception page of my website.

Jarvie, John. Interview by Rick Beyer and Jacqueline Sheridan. *Ghost Army Legacy Project*, 2005, <http://www.ghostarmylegacyproject.org/selected-interviews.html>. Accessed 1 Dec. 2020.

I have a high appreciation for John Jarvie, who was a member of the Ghost Army's 603rd Camouflage unit, and learned much from his interview. The members of his unit were in charge of special effects, which enhanced the numerous deceptions carried out by the Ghost Army. This interview significantly added to my overall knowledge of the roles each of the four units played in carrying out deceptions, which influenced my decision to make separate website pages for each of them.

Masey, Jack. Interview by Rick Beyer and Jacqueline Sheridan. *Ghost Army Legacy Project*, 2005, <http://www.ghostarmylegacyproject.org/selected-interviews.html>. Accessed 1 Dec. 2020.

This recorded interview with Jack Masey, a member of the 603rd Camouflage Engineering Battalion, provided an in-depth explanation of the different deceptive techniques his unit engaged in to fool the German army and help the Allies to victory. I enjoyed his personality and the fact that he used his art skills to help achieve victory over the Germans. As a result, I used a quote from his interview on the visual communication page of my website.

Nussenbaum, Seymour. Email Interview. 29 Dec. 2020.

A highlight of my research was conducting an interview with 97-year-old Seymour Nussenbaum, a Ghost Army veteran, who served with the 603rd Engineer Camouflage Battalion. Because of his art training, Nussenbaum was assigned to perform visual deceptions using inflatables or, as he told family, “I blew up tanks.” He also created fake patches to make Ghost Army units appear more realistic, which is why I included a fake patch on my special effects page.

Rebh, George. Interview by Rick Beyer and Jacqueline Sheridan. *Ghost Army Legacy Project*, 2005, <http://www.ghostarmylegacyproject.org/selected-interviews.html>. Accessed 1 Dec. 2020.

George Rebh was a member of the 406th Engineer Combat Company Special, and his interview was the only personal perspective I could locate about this Ghost Army unit. While the 406th Engineers was mostly a combat unit, Rebh also spent time impersonating a colonel and doing special effects. This interview was interesting because it helped me understand the many different roles performed by members of the Ghost Army to carry out successful deceptions.

Seltzer, Gilbert. Interview by Sarah Seltzer. *StoryCorps, Ghost Army Legacy Project*, 14 Jan. 2019, <http://www.ghostarmylegacyproject.org/selected-interviews.html>. Accessed 1 Dec. 2020.

Gilbert Seltzer was a member of the 3132 Signal Service Company whose job was working on sonic deceptions during World War II. In his interview, Seltzer described how sounds contributed to the believability of visual illusions and influenced what people reported having seen. I included a video clip of this interview on the sonic deception page of my website because it illustrates how all the senses come together to determine the way a message is understood.

Syracuse, Dick. Interview by Rick Beyer and Jacqueline Sheridan. *Ghost Army Legacy Project*, 2005, <http://www.ghostarmylegacyproject.org/selected-interviews.html>. Accessed 1 Dec. 2020.

Dick Syracuse was a member of the 3132 Signal Service Company that handled sonic deceptions during World War II. I used a quote from Syracuse on the sonic deception page of my website describing how sounds played tricks on a person’s mind, as it showed the many different aspects of communication involved in carrying out a successful deception.

Wilson, Gordon. Interview. *Witness to War: Preserving the Oral Histories of Combat Veterans*, N.d., www.witnesstowar.org/combat_stories/WWII/935. Accessed 1 Dec. 2020.

In this video interview, Ghost Army veteran Gordon Wilson explained that, as part of a deception unit, he was not allowed to engage in combat with the enemy. Wilson's story built my understanding about experiences of the Ghost Army soldiers that weren't discussed anywhere else and provided a valuable perspective concerning their contributions to the war effort.

Letter

Simpson, Lt. General William, "Letter of Commendation." 29 March 1945. Headquarters Ninth United States Army.

This letter, written by Lt. General William Simpson of the United States 9th Army, commended the 23rd Headquarters Special Troops for their actions during the Rhine river crossing in March, 1945. I found the letter's wording very interesting as it included no mention of deception whatsoever. I used this letter on the impact page of my website because it shows the secrecy involved in Ghost Army's deceptions, which led to negative feelings among Ghost Army veterans after the war because they could not share specifics of their military service.

Newspaper Articles

"Army Reveals Use of 'Ghost Army' in War; Pneumatic Decoys Misled Foe, Won Battles." *New York Times*, 5 Dec. 1945, p. 19.

This newspaper article described the period after the war when the U.S. War Department revealed the 'Ghost Army' and the communication tactics it used to aid the Allies. The *Times* reported that enemy reconnaissance had spotted large-sized mechanized units, which were actually decoys designed to impersonate real military equipment. I used this headline on my visual deception page because it shows the impact of the Ghost Army's actions, which was rare given the fact that information regarding their role remained classified until 1996.

Barrett, Bill. "Ghost Army Kept Germans Busy, Former Private Says." *Dayton Herald* [Dayton, Ohio], 21 Feb. 1946, p. 34.

This article included an interview with Victor Lawrence, a Ghost Army soldier, who described the use of deceptive communication, such as sounds, inflatables, and art, to mislead the Germans. The Germans never caught on to their highly organized plans of deception, which helped secure victory in Europe. This provided rare newspaper coverage about the Ghost Army for my website.

"Congress Declares War on Japan 1500 Killed in Attack on Hawaii." *St. Louis Post-Dispatch*, 8 Dec. 1941.

This headline announced Congress' decision to declare war on Japan following its December 7 attack on Pearl Harbor. I included it on my lead up page because it provides important historical context concerning why U.S. troops were behind in military preparation and training. The creation of the Ghost Army and its use of deception helped the U.S. military overcome that early disadvantage.

Dudly, Fred. "Lowell Factory Made One Of War's Most Fantastic Weapons." *The Lowell Sun* [Lowell, Massachusetts], 13 Feb. 1946, pp. 1–3.

This article discussed how the Ghost Army stoked the American economic engine, as U.S. factories engaged in manufacturing the inflatable items they used in their deceptions. These rubber items were necessary for Allied success, as was the secrecy surrounding their existence. I used information from this article on my website when discussing how factory workers thought the rubber decoys were only used for training purposes, which was critical to maintaining the secrecy of the Ghost Army's actual mission throughout the war.

"Science in the News." *Chattanooga Daily Times* [Chattanooga, Tennessee], 31 Dec. 1945, p.12.

This newspaper article, which discussed how units created pneumatic decoys and the problems they encountered, was one of only a few that leaked information about top secret Ghost Army deceptions. This article helped me better understand the materials and design of the decoys used by the Ghost Army to successfully deceive the Germans during World War II.

Smith, Dorothy. "Ghost Army of Rubber Decoys Fought Bloodless Battles, Deceived Enemy." *Knoxville News-Sentinel* [Knoxville, Tennessee], 6 Jan. 1946, p. 25.

This newspaper article discussed how dummies used by the Ghost Army to carry out deceptions were smaller and lighter than the first ones produced. Because they could perform deceptions, pack up, and quickly move to a new location to do it all over again, they were able to contribute to military success in twenty-one different engagements during World War II, which I emphasized in my project.

"Soldier's Unit Fought with Rubber Guns, Dummy Tanks." *The Troy Record* [Troy, New York], 3 Nov. 1945, p. 4.

The article discussed what Ghost Army soldiers could share concerning their deceptive communication tactics, such as dummy tanks, aircraft, visuals, sounds, and acting techniques. However, there was much more information withheld from the public so these techniques could be used in later wars. This article also helped me understand that fooling the Germans was critical to the Ghost Army's survival, as each unit had only a few side arms to protect themselves.

Newsreels

Army Pictorial Services. "Sonic Deception." 1944. *United States War Department*, <https://www.youtube.com/watch?v=ljathDWC1UA>.

This 3 minute video from the United States War Department explained sonic deception and how the Ghost Army used it to falsely communicate information to its enemies during war. These wire recordings played on 500 pound speakers mounted on half-tracks and could be heard up to 15 miles away. As a result, I used a picture from this video on the sonic deception page of my website.

"Release 198, 1946." *United Newsreel Corporation*, 1946, <https://video.alexanderstreet.com/watch/united-news-release-198-1946>.

This newsreel provided original footage of inflatable tanks and trucks used by the Ghost Army to deceive the enemy. I used an excerpt from this video on the visual deception page of my website because it shows the realistic nature of the deceptions, which was key for successfully communicating a false message to the Germans regarding troop size, location, and strength.

Book

Tzu, Sun. *The Art of War*. Translated by Samuel B. Griffith, Oxford University Press, 1963.

The English translation of Chinese General Sun Tzu's book on war, written during the 5th century BCE, was exceptionally helpful in understanding timeless military leadership principles. Each chapter states basic premises that have held true throughout history, including one about preferring deception over fighting. I quoted this principle at the top of the background page of my website to show the significance of this concept in wars throughout history.

Photographs

23rd Headquarters Special Troops. C. 1944, *Hatcher Graduate Library*.

This photograph shows members of the 23rd Headquarters Special Troops hoisting an inflatable tank on their shoulders. I used this picture as the background on the homepage of my website because it really demonstrates the essence of the deception methods used by the Ghost Army. This is one of my favorite pictures because the inflatable tank looks so real and it is such a strange sight to see it being lifted.

Attack of Naval Base in Pearl Harbor. 1941, Library of Congress.

I placed this iconic picture of Pearl Harbor in flames on the lead up page of my website next to a headline announcing U.S. entry into World War II. Together, they provide important historical context for understanding why the U.S. joined the war and the need to use deception as a way to overcome the U.S. troops lack of preparation and training relative to European troops.

Barnard, George F. *Centreville, Va. Fort on the heights, with Quaker guns*. March 1862. Library of Congress, <http://loc.gov/pictures/resource/cwpb.00979/>.

Deception is as old as war itself and the idea of using fake weapons to fool the enemy can be seen in wars throughout history. This photograph shows Quaker guns, or trees cut to resemble cannons, that were used by Confederates to fool the Union army during the Civil War. I used this picture on my background page because it provides important historical context for the visual deceptions used by the Ghost Army during World War II.

British Troops Inflate A Rubber Dummy Tank. c. 1940, Hulton-Deutsch Collection.

This picture of British troops inflating a dummy tank shows the size of the dummy tanks and how realistic they actually appeared. I used this picture on my lead up page because the British troops' use of deception in the early years of World War II inspired the creation of the Ghost Army.

Dummy vehicle photograph. 1945, National Archives and Record Administration.

This picture shows the numerous dummy tanks and trucks as seen by reconnaissance planes. This visual deception even included fake tank tracks made by the bulldozers of the 406th Combat Engineers. I used this picture on the visual deception page of my website to add visual understanding of how deception communicated a false message to the enemy.

Ghost Army radio operator photograph. c. 1944, U.S. Army Signal Corps.

This U.S. Army Signal Corps photograph shows a radio operator using a telegraph to send fake Morse Code messages during World War II. This was a key aspect of radio deception and the most common radio signal intercepted by the Germans, which is why I put it on the radio deception page of my website.

Halftrack with speaker photograph. c. 1945, National Archives and Records Administration.

This photograph shows the vehicle on which the high powered speakers were mounted to project sounds that could be heard up to fifteen miles away by the enemy. I used it on the sonic deception page to show the manner in which the Ghost Army used sound to falsely communicate the size, location, and strength of Allied troops to the enemy.

Inflatable tank photograph. c. 1945, National Archives and Records Administration.

This photograph shows an inflatable tank used by the Ghost Army. I put it on the visual deception page of my website with a caption explaining how factory workers who manufactured the rubber decoys thought they were for training purposes rather than actual military deceptions.

Masey, Jack. 603rd Camouflage Engineering Battalion photograph. c. 1944, Ghost Army Legacy Project.

I used this picture of the 603rd Camouflage Engineering Battalion on the visual deception page of my website. The 603rd was the largest Ghost Army unit, due to the massive number of dummy items they needed to set up, take down, and move from place to place. This picture showed the men who got it done.

Sonic deception speaker photograph. c. 1945, National Archives and Records Administration.

This photograph shows high powered speakers used in sonic deception. They projected sounds up to fifteen miles, which was extremely helpful in communicating the message that troops were in the area. I used this photo on the sonic deception page to show the key role of technology in deception.

"Two GIs stencil fake markings on a jeep." c. 1956, National Archives and Records Administration.

This photograph shows two GIs engaged in marking up a jeep to make it look more authentic. These types of special effects were needed for carrying out successful deceptions and that is why I included this picture on the special effects page of my website.

Secondary Sources

Interviews

Beyer, Rick. Personal Interview. 26 Dec. 2020.

My interview with Rick Beyer was incredible, as he has studied the Ghost Army for ten years, written a book, produced a film, and collaborated with the National World War II Museum on their new Ghost army exhibit! Our back and forth email correspondence since August was greatly beneficial, as he connected me with a 97-year-old Ghost Army veteran to interview and directed me to primary sources available from the National Archives and veteran collections. While Beyer provided great insight concerning the Ghost Army that was very helpful in the analysis of my topic, I consider his interview a secondary source since Beyer was not alive nor part of the Ghost Army's actions during World War II.

Hamner, Dr. Christopher. Personal Interview. 11 Jan. 2021.

From 2014-2016, Dr. Christopher Hamner taught officers at the U.S. Army War College in Carlisle, Pennsylvania and, as a result, possessed great knowledge concerning the use of deception in wars past and present, including deception performed by the Ghost Army during World War II. That is why I included an excerpt and quote from the interview I conducted with him on the impact page of my website concerning how the Ghost Army influenced the expanded role of deception in the military today. Although Dr. Hamner shared important information about the impact of the Ghost Army, I consider him a secondary source as he was not part of nor witness to the actual Ghost Army.

Sayles, Elizabeth. Personal Interview. 16 March 2021.

I had the amazing opportunity to interview Liz Sayles, co-Author of Rick Beyer's Ghost Army book, who possessed a wealth of knowledge on the Ghost Army because her father, William Sayles, was a member of the 603rd Camouflage Battalion Unit. Ms. Sayles shared fascinating stories about her father and other artists regarding how they got their art supplies, which provided perspective on European life during the war, and how their time in the Ghost Army influenced their art careers, which I referenced on my impact page. Although she provided great information that aided my analysis and project development, I consider her a secondary source since she was not a member of the Ghost Army, nor a witness to their actions.

Books

Beyer, Rick, and Elizabeth Sayles. *The Ghost Army of World War II: How One Top-secret Unit Deceived the Enemy with Inflatable Tanks, Sound Effects, and Other Audacious Fakery*. Princeton Architectural Press, 2015.

Rick Beyer and Elizabeth Sayles wrote a comprehensive book about the 23rd Headquarters Special Troops unit, which carried out deceptions that helped the U.S. Army to victory in Europe during World War II. The authors conducted extensive interviews with a large number of the Ghost Army's 1,100 soldiers, which personalized their account of the Ghost Army's roles and activities during the war. This book was one of the first sources I read on my topic, led me to get in contact with Mr. Beyer, and became the roadmap for my overall project.

Bolt, Roelf. "Ghost Army: 23RD Headquarters Special Troops." *The Encyclopaedia of Liars and Deceivers*. Reaktion Books, 2014.

This book had a very interesting chapter that discussed the Ghost Army and the many ways deception was used well before the time of World War II. When Germany declared war on the United States after the bombing of Pearl Harbor, the U.S. commanders knew they were not fully prepared, and being clever was their best choice of action. This book provided information about the use of deception, which helped me in developing the background and lead-up pages of my website.

Findley, Benjamin F., and Frank L. Goldstein. *Psychological Operations: Principles and Case Studies*. Air Univ. Press, 1996.

Colonel Findley's and Colonel Goldstein's book provides an excellent handbook on the modern use of military deception principles. While it explains how more sophisticated surveillance technology has made the use of deception more challenging, it also explains how the military has embraced technology to better carry out modern deceptions. As a result, I included a quote from this book on the impact page of my website, since the modern military still uses many of the Ghost Army's deception techniques with enhancements.

Goodman, Steve. "1944: Ghost Army." *Sonic Warfare: Sound, Affect, and the Ecology of Fear*. MIT Press, 2009.

This book had a very descriptive account of the Ghost Army's sonic division and how sonic illusion was carried out, as well as a helpful explanation of how the ears and mind work together to make the deception seem realistic. Hearing is imperfect and people can be fooled into believing things that aren't real, especially when other senses, such as sight, are involved. Deception came in all forms and had to consider not only the message being sent but also how it would be received, which is an important idea I included on the sonic deception page of my website.

Government Document

Army Support to Military Deception. Field Manual 3-13.4, United States Department of the Army, 26 February 2019.

This U.S. Army handbook provided information about modern American military deception. I put the cover of this document on my website's impact page to show the role deception plays in the military today, a situation which was strongly influenced by both the success experienced by the Ghost Army in World War II and successful deceptions carried out in later military engagements.

Newspaper Articles

Delloye, Tate. "Ghost Army Covertly Used Inflatable Tanks and Airplanes and Spoof Radio Broadcasts to Deceive Nazis." *Daily Mail Online*, 1 May 2019, www.dailymail.co.uk/news/article-6974323/Ghost-Army-covertly-used-inflatable-tanks-airplanes-spoof-radio-broadcasts-deceive-Nazis.html.

This newspaper article contained information and photographs concerning Ghost Army deceptions. It also shared the experiences of Bernie Bluestein and Gilbert Seltzer in the Ghost Army, which provided very useful context for an audio clip of Seltzer that I used on the sonic deception page of my website

Gammage, Jeff. "Ghost Army' Emerges from WWII." *The Progress-Index* [Petersburg, Virginia], 14 May 2013, p. B2.

Gammage's article discussed how the Ghost Army used inflatable tanks, jeeps, and other forms of deception to falsely communicate the presence of Allied troops, which often resulted in taking on enemy fire. Their goal, to divert German attention so the real Allied troops could more easily advance and experience fewer casualties, was a concept I emphasized throughout my website.

"Ghost Army Revealed." *Leader-Telegram* [Eau Claire, Wisconsin], 29 Nov. 2010, p. A5.

This newspaper article shared the memories of Ghost Army veteran Al Albrecht, who belonged to the sonic deception unit. For 50 years, he and others kept secret the deceptive operations they carried out, which helped me understand the joy he experienced when information about the Ghost Army was declassified and they were finally able to talk about their war experiences.

Guerra, Kim. "Alfred H. Latini, 82; Served in Ghost Army." *The Record* [Hackensack, New Jersey], 23 Apr. 2004, p. 19.

Alfred H. Latini proudly served his country in one of the most secret army units in U.S. history and, after his death, his family was interviewed about his service for this article. Latini was one of many artists that made up the Ghost Army and helped carry out deceptions that helped the Allies win the war. This helped me better understand the roles played by those in the 1,100 member Ghost Army.

Morris, George. "He Details Days in 'Ghost Army': Unit's Job Was to Fool the Germans." *Montgomery Advertiser* [Montgomery, Alabama], 19 Aug. 2017, p. C1.

Deception is as old as war itself, but the Ghost Army was the first U.S. unit whose entire job was based on forming illusions and carrying out plans based completely on trickery. The article's author interviewed a Ghost Army soldier who spent many years in silence about his role in the war, until 1996 when the government declassified records concerning the 23rd Headquarters Special Troops' activities. Keeping a secret for so long was hard and made Ghost Army soldiers feel less valued, an idea I emphasized on my website's impact page.

Smiles, Jack. "Pittston Native Served With Top Secret Unit in WWII." *Citizen's Voice*, 18 June 2017, p. P2.

John Kennedy, from Pittston, Pennsylvania, was a member of the Ghost Army's 603rd Camouflage Engineering Battalion. This article talked about Kennedy's enlistment in the Ghost Army and shared the interesting fact that Mr. Kennedy was the only Ghost Army member Rick Beyer met who was recruited through radio. This article also included a photograph of a sewing kit used to make fake badges, which I put on the special effects page of my website.

Tatum, Crystal. "Secret Unit's Key Role in World War II." *The Atlanta Constitution* [Atlanta, Georgia], 20 Aug. 2012, p. B3.

Jack Stanley, a member of the radio deception unit, was quoted in this article concerning the operations they carried out that helped make the Allied forces victorious in Germany and France. He painted a picture in my mind of operations so real that it would almost be impossible to believe otherwise. I used the headline of this article on the radio deception page of my website because it emphasized the key role of radio deception in World War II.

Journal Articles

"Congress Set to Honor America's 'Ghost Army.'" *World War II*, vol. 31, no. 2, July-Aug. 2016, p. 12. *Gale Academic OneFile*,
https://link-gale-com.proxy.lib.uni.edu/apps/doc/A453914633/AONE?u=uni_rodit&sid=AONE&xid=9fd14b1a.

This journal article described a 2016 bill written to honor the U.S. Army 23rd Headquarters Special Troops, or Ghost Army, with the Congressional Gold Medal. This action, which still has yet to be passed by Congress, recognizes the importance of deceptive communication in helping facilitate Allied victory in World War II and the need to publicly honor their contribution, which was kept secret for so many years.

Garber, Megan. "Ghost Army: The Inflatable Tanks That Fooled Hitler." *The Atlantic*, 22 May 2013,
<https://www.theatlantic.com/technology/archive/2013/05/ghost-army-the-inflatable-tanks-that-fooled-hitler/276137/>.

This article explained the many divisions of the Ghost Army, how the soldiers were recruited, and why certain soldiers were handpicked for particular jobs. The forms of deception they carried out communicated false information to German forces about the size and location of Allied troops, which caused enemy commanders to divert troops as a counter, and saved thousands of lives as a result. This was one of the first articles I read and it helped influence my thinking about the Ghost Army's impact, which was helpful in drafting a thesis statement for my project.

Handel, Michael I. "Intelligence and Deception." *Journal of Strategic Studies*, Volume 5, Issue 1, 1982, pp. 122-154.

The fact that intelligence and deception work hand in hand is the main point put forth in this interesting journal article that reveals the critical role deceptive communication has played in wars throughout history. I used a quote by the author of this article, Michael Handel, on the lead up page of my website that explains how, if all the elements of war are equal, deception will further amplify the strength of a state to help it achieve an advantage over the enemy.

Linn, James M., IV. "CON ARTISTS: One unit had perhaps the oddest assignment in the U.S. Army: create a fake force, but make it look and sound real." *World War II*, vol. 34, no. 6. Apr. 2020, p. 60+. *Gale General OneFile*, <https://link.gale.com/apps/doc/A613134031/GPS?u=4599nphs&sid=GPS&xid=6c937841>.

This journal article explained how, in 1944, the 23rd Headquarters Special Troops became the first mobile, multimedia tactical deception unit in U.S. army history. Additionally, since Ghost Army soldiers were sworn to secrecy about their activities, all records were classified and packed away after the war. This helped me understand why the Ghost Army soldiers were so moved by being able to share their experiences once they were allowed to do so in 1996, which I emphasized on the impact page of my website.

Documentary

"Ghost Army." *PBS*, 18 June 2013.

"Ghost Army" was an in-depth PBS documentary produced by Rick Beyer that explained the entire history of the 23rd Headquarters Special Troops, also known as the Ghost Army. This film was filled with great clips, pictures, interviews, tons of facts, and detailed information about the Ghost Army that both added to my overall topic knowledge and helped me determine a way to logically organize my website into different pages representing key subtopics.

Speech

Beyer, Rick. "Date With History: Ghost Army of World War II." 9 Dec. 2019, First Division Museum, Wheaton, Illinois, www.youtube.com/watch?v=GRLF7duYnAY.

Rick Beyer, author of the most extensive book on the Ghost Army, gave this very interesting speech with lots of details about the 23rd Headquarters Special Troops and how they used deceptive communication to fool German soldiers about the size, strength, and location of American units. This was very helpful when I created web pages concerning the major deceptive communication tactics used by the Ghost Army during their twenty-one successful deceptions in World War II. Also, after watching Beyer's speech and reading his book, I had a list of questions I got him to answer when he agreed to do an interview with me later.

Webinars

Beyer, Rick. "The Ghost Army of World War II." Tewksbury Public Library. Tewksbury, MA, 15 July, 2020.

This webinar, featuring Rick Beyer, was hosted by the Tewksbury Public Library in Massachusetts this past summer. Beyer talked in detail about the Ghost Army's deceptions and, because I watched it early on in my research process, it greatly enhanced my overall topic understanding and guided me to other sources. Additionally, I used a picture of radio operators from this webinar on the radio deception page of my website to show one of the Ghost Army's deceptive communication methods.

Fazande, Jenney. "The Ghost Army: Telling the Story of the Combat Con Artists through the Exhibit and the Collections." National World War II Museum, 6 Oct. 2020.

The National World War II Museum hosted a great webinar about their new exhibit concerning the Ghost Army. Because it was hosted by the people who designed the exhibit, it provided me with wonderful ideas for how to create a project with colors and backdrops that best matched my topic. Also, the historian provided really good information on sound deception and special effects that were helpful when I was writing text for my website on those aspects of the Ghost Army's deceptive communication.

Souter, Gerry, and Janet Souter. "The Ghost Army: Conning the Third Reich." Bartlett Public Library District. Bartlett, IL, 5 Sept. 2020.

This was a fantastic webinar that gave me insight concerning deceptions carried out by the 23rd Headquarters Special Troops. The first part of the program, which featured two authors of a book on my topic, included helpful background information about the ways Britain used deceptive communication to win wars, as well as how the United States took their deceptions to the next level. I appreciated that they were willing to answer my question about the impact of the Ghost Army's deceptive communication tactics, which helped me better understand my topic's significance.

Radio

Neary, Lynn. "World War II Stories, Artists of Battlefield Deception: Soldiers of the 23rd." *Iowa Public Radio*, 25 Sept. 2007, <https://www.npr.org/templates/story/story.php?storyId=14672840>.

This Iowa Public Radio broadcast discussed individuals drafted into the Ghost Army, the reasons some men were picked over others, and information about those who took up the challenge. It also discussed the use of different strategies to deceive German troops through intentional miscommunication, which helped me better understand my topic's connection to the theme of communication.

Websites

Clark, James. "Ghost Army: How an Army of Artists and Tricksters Conned the Nazis and Bluffed Their Way to Victory in World War II." *Task & Purpose*, 1 Sept. 2020, taskandpurpose.com/history/ghost-army-wwii/.

This website did a great job breaking down the various parts of the Ghost Army and provided information concerning the inspiration for the 23rd Headquarters Special Troops. It also provided quotes from Ghost Army officers that revealed their personal perspectives on their roles, some of which I used on my website.

Editor. "April Fools – Eight Classic Deceptions From Military History." *Military HistoryNow.com*, 1 Apr. 2016, militaryhistorynow.com/2015/03/31/phoney-war-fake-cannons-dummy-tanks-and-other-battlefield-trickery/.

This website provided descriptions of eight classic deceptions in military history. I used this information to build the background page of my website, which includes examples of historical deceptions needed as historical context for my topic.

"Freddy Fox Goes to War." *Princeton Alumni Weekly*. Princeton University, paw.princeton.edu/article/freddy-fox-goes-war.

This online article profiled Lt. Fred Fox, why he joined the army, and how he put his acting skills to work in order to pull off deceptions during World War II. After taking part in his first deception, Operation Elephant, Fox felt they needed to take a more theatrical approach and, as a result, created special effects. I used some of this information on the special effects page of my website to explain its importance for making deceptions more realistic.

“The Ghost Army.” *The Plate of Peas*, 18 June 2013, ghostarmy.com/bio/f/Inside_the_23rd/417.

This website was established by Rick Beyer to provide publicity for his book and documentary about the Ghost Army. It had pages of information mixed with pictures, some very unique in form, that I hadn't seen in any other resources. It was also where I first learned about the bipartisan legislation initiated in May 2017, to award a Congressional Gold Medal to the 23rd Headquarters Special Troops.

Ghost Army Legacy Project, Ghost Army Legacy Project, Inc.,
<http://www.ghostarmylegacyproject.org/>.

The Ghost Army Legacy Project website was established as a historical clearinghouse of information about the 23rd Headquarters Special Troops, known as the Ghost Army. It contains so many helpful interviews with veterans, personal letters, pictures, and other artifacts concerning the Ghost Army, all of which built my knowledge and provided useful visuals for my project.

Grisar, P.J. “At 95, The Heroes of The Ghost Army Relive the Battles of WWII.” *Forward*, 22 Feb. 2019,
<https://forward.com/culture/419758/at-95-the-heroes-of-the-ghost-army-relive-the-battles-of-wwii/>.

This website provided a detailed account concerning the experiences of two Ghost Army Veterans. Bernard Bluestein and Seymour Nussenbaum were best friends and both members of the 603rd Camouflage Engineers, the visual deception wing of the 23rd Headquarters Special Troops. Together, they helped build the “dummies” and fine tuned the skills at performing the many forms of camouflage they used in carrying out their deceptions. Their stories personalized the actions of the Ghost Army for me so I could better communicate the specifics of their role carrying out deceptions on my website.

Iron & Air. “The Ghost Army.” *Iron & Air*, ironandair.com/blogs/news/the-ghost-army.

This article on the Iron & Air website had amazing photos and information about the Ghost Army. I used a photograph in my project from this website that showed the 23th Headquarters Special Troops at work with their deceptions.

Maksel, Rebecca. "The Ghost Army of World War II." *Air & Space Magazine*, Air & Space Magazine, 17 Aug. 2015, www.airspacemag.com/daily-planet/ghost-army-world-war-ii-18095561/.

This web article was short but provided a good summary concerning the top secret unit called the Ghost Army of World War II. It had an array of photos, some I had never seen before, which made it an interesting read and expanded my understanding of the Ghost Army's methods.

Mingle, Katie. "Show of Force." *99% Invisible*, 21 April 2015, 99percentinvisible.org/episode/show-of-force/.

This online article had amazing photographs of the Ghost Army's deceptions during World War II. It made me think about the degree of detail needed to successfully carry out deceptions, which I emphasized on my website.

Princeton Arch Press. "The 'Special Effects' of World War II's Ghost Army." *Medium*, Medium, 11 Nov. 2016, medium.com/@PAPress/the-special-effects-of-world-war-ii-s-ghost-army-475851ba8a0.

This Princeton Arch Press article had good details about the Ghost Army's deceptions. Also, it told the story of Princeton alum and Ghost Army veteran, Frederick Fox. Additionally, it featured pictures of the fake patches he made and men painting bumper markings and numbers on a jeep, which I used on the special effects page of my website.

"Revolutionary War Battles." *George Washington's Mount Vernon*, www.mountvernon.org/george-washington/the-revolutionary-war/washingtons-revolutionary-war-battles/#.

I used this website's information on the background page of my Ghost Army project. It discussed how George Washington's army won the Battle of Princeton by using deceptions to fool the British. It also provided an image of a painting that I used to illustrate this historic deception on my website.

Image

Andrew, Sgt. Donnan. *8th PSYOP Airborne Soldier*. 12 April 2021. Email Correspondence.

During my research, I learned about the influence of the Ghost Army on the use of military deception today. This picture shows the Ghost Army patch worn by an 8th PSYOP Airborne soldier, which clearly illustrates the influence of the 23rd Headquarters Special Troops on the individuals charged with carrying out modern day military deception. As a result, I used this image in the modern deception section on the impact page of my website.

“Spooky Woods' Canvas Print by RagingRat23.” *Redbubble*, www.redbubble.com/i/canvas-print/Spooky-Woods-by-RagingRat23/37943815.5Y5V7.

I got the idea for using this image of a heavily wooded area as the header picture throughout my website from attending a webinar put on by the National World War II Museum. One of the museum’s archivists discussed how they used a wooded scene as part of their Ghost Army exhibit because many of the unit’s deceptions were carried out in similar areas. Also, I felt using this picture as a backdrop for my titles would help people have the sense of “being there” as they interact with my website.