Journal of e-Media Studies
Special Issue: Early Cinema Compendium, Mark Williams (editor)
Volume 7, Issue 1, 2024 Dartmouth College

Two Ways of Memory: The Signal Corps and CBS World War I Motion Picture Collections at the National Archives

Bret Vukoder
Temple University

Abstract

In 2014, upon the centennial of the outbreak of World War I, the National Archives initiated a systematic effort to restore and reorganize two major motion picture collections capturing the tumultuous era. The 111-H series, which holds 470 titles created by the Army Signal Corps and offers extremely detailed corresponding metadata, reflects a key goal of the unit—to create a vast and unflinching historical account for posterity. Alternatively, the 660 titles of the CBS-WWI collection, gathered a half century after the war from 26 international film archives to make CBS's 1964 *World War One* television program, signify an attempt to retrospectively write that history. In recounting the story behind the creation of each collection, delineating their recurring themes, and analyzing the series' two models of sight—looking upon and looking back; making and remaking history—this paper reconsiders how we have collectively mapped the history of the Great War. Furthermore, this paper argues, the tools and platforms of the Media Ecology Project provide a productive means to place these series' two historiographic perspectives in direct dialogue, exploring how public memory has been and may be shaped.

Introduction

"Although these two motion picture collections were compiled fifty years apart, the conversation that we can activate through them and their associated metadata suggests a dynamic historiography. In the tension between anticipating and selecting history, we can learn more of film's role in the shaping of public memory."

This paper addresses two massive motion picture collections preserved at the National Archives and Records Administration (NARA) in College Park, Maryland, each featuring hundreds of reels of footage from the years during and surrounding World War I. Though the two archives cover roughly the same period, the vastly different ways in which they were assembled and curated speaks to both the making and remaking of memory. The footage of the Army Signal Corps (NARA record group "111-H")—captured under mandates of reconnaissance, communication, and history—embodies the World War I moment, indiscriminately seeing the world before, during, and after the war for the sake of strategic and cultural posterity. Alternatively, the motion pictures of the CBS-WWI collection (NARA record group "CBS-CBS-WWI")—compiled from reels housed at twenty-six archives across ten nations for the 1964–1965 program *World War One*—were used to reconstruct that same history. [1] The program

funnels a kaleidoscopic array of scenes from the era into a deterministic story that caters to a Cold War audience, narrating the significance of World War I relative to its own present. Although these two motion picture collections were compiled fifty years apart, the conversation that we can activate through them and their associated metadata suggests a dynamic historiography. In the tension between anticipating and selecting history, we can learn more of film's role in the shaping of public memory.

To begin mapping the conversation between these two collections, I will first describe the scope of each record group's assortment of films and metadata, reconciling these details with their accession files to ascertain how NARA and the contributing entities framed the collections upon their donation to the archive. Second, I will delineate the historical context surrounding the materials, providing details about the Signal Corps' Photographic Section and the making and release of CBS's *World War One*. Third, giving more focus to 111-H, I will parse the Signal Corps collection for recurrent topical and aesthetic themes. For the CBS-WWI materials, I will alternately highlight standout entries that may provide specific entry points for WWI research and explore novel historiographic questions on how one creates and then selects from an archive. Finally, I will illustrate how the Media Ecology Project's (MEP) tools and platforms can facilitate our efforts to map and connect the collections through both granular and at-scale analysis.

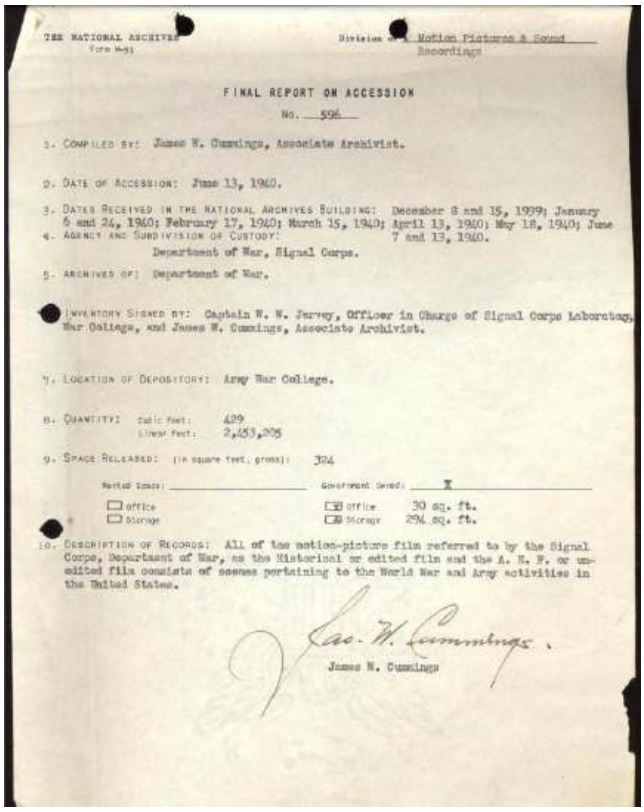
Defining the Collections: Accession, Organization, and Processing at the National Archives

In 2014, as the centennial of the Great War approached and demand for archival materials increased, NARA began to systematically restore and reorganize much of its WWI motion picture holdings—the largest collection in the United States. With each series totaling over a million feet of film reel, the US Army Signal Corps' WWI era record group (111-H) holds 470 unique titles and 871 reels, while the footage gathered by CBS for its *World War One* program (CBS-WWI) offers 660 titles and 751 reels. Although this effort enabled the digitization of CBS-WWI's films and optimal character recognition (OCR) of its primary documents, NARA primarily focused its efforts on the Signal Corps collection. In an effort to not only restore the materials but make them more accessible and navigable, NARA designed a three-phase approach to be realized over the next several years. First, it digitized and produced finding aids from the Signal Corps' detailed index cards, which precisely describe the content and reel length of each shot, sometimes offering additional notes such as camera distance or movement. Second, as a stopgap, NARA used a SAMMA robot in its Audiovisual Preservation Laboratory to digitize all of the group's U-Matic and VHS tapes, which had been created as reference copies in years prior.[2] In phase three, on the shoulders of a large anonymous grant, the Motion Picture Preservation Laboratory utilized a cutting-edge HD scanner to produce sharper, visually pristine copies of the original 35mm film.[3] Today each film collection is fully digitized, with most of the titles available remotely through the National Archives Catalog and its YouTube page.[4]

The story of each record group's accession into the National Archives informs how we may navigate and interpret them today. In 1939 NARA acquired the 111-H materials from the Department of War's Army War College in Carlisle, Pennsylvania. In all, the film acquisition amounted to roughly 2.5 million feet, 60 percent of which was edited footage (see Figure 1). Alongside the motion picture materials, NARA also absorbed incredibly detailed documents providing metadata for the reels. With each title came a shooting script, numbered precisely to correspond to the film reels and listing each title's scenes.[5] Additionally, 130,000 index cards, organized by subject and now digitized, provide further information for each scene, giving fuller descriptions, dates, locations, and even the names of

the camera operators.[6]

Though by today's standards, 111-H's silent era film remains in relatively excellent condition, the archivists of the time called the edited reels "fair," while the unedited ones were "none too good." Accordingly, the films would require a lot of labor and money to maintain. Nevertheless, NARA's chief of motion pictures at the time, John G. Bradley, recognized the value of the reels despite the likely difficulty in maintaining them. In a letter to the Accessions Advisory Committee, he says, "I doubt the historical value of the . . . film, in its own right, can be seriously questioned. . . I believe we should accept this collection in spite of our handicaps."[7] As Criss Austin notes, Bradley exhibited great foresight in his efforts to protect the Signal Corps materials, as "film archiving was a fledgling concept in 1939."[8] Even after their initial efforts with the accession in 1939, NARA staff continued to demonstrate their commitment to facilitating research of the collection, producing an essential directory for the material in 1957. Philip Stewart calls it a "landmark finding aid," claiming it became the "principal guide" used by researchers over the following five decades.[9] And, of course, this commitment continues with the recent initiatives upon the war's centennial.



THE NATIONAL ARCHIVES
Form 9-83

Division of Motion Pictures & Sound Recordings

FINAL REPORT ON ACCESSION

No. 596

1. COMPILED BY: James W. Cummings, Associate Archivist.

2. DATE OF ACCESSION: June 13, 1940.

3. DATES RECEIVED IN THE NATIONAL ARCHIVES BUILDING: December 8 and 15, 1939; January 5 and 24, 1940; February 17, 1940; March 15, 1940; April 13, 1940; May 18, 1940; June 7 and 13, 1940.

4. AGENCY AND SUBDIVISION OF CUSTODY: Department of War, Signal Corps.

5. ARCHIVES OF: Department of War.

6. INVENTORY SIGNED BY: Captain W. W. Jervey, Officer in Charge of Signal Corps Laboratory, War College, and James W. Cummings, Associate Archivist.

7. LOCATION OF DEPOSITORY: Army War College.

8. QUANTITY: Cubic Feet: 429
Linear Feet: 2,453,205

9. SPACE RELEASED: (In square feet, gross): 324

Rented Space: Government Owned: X

☐ Office ☒ Office 30 sq. ft.
☐ Storage ☒ Storage 294 sq. ft.

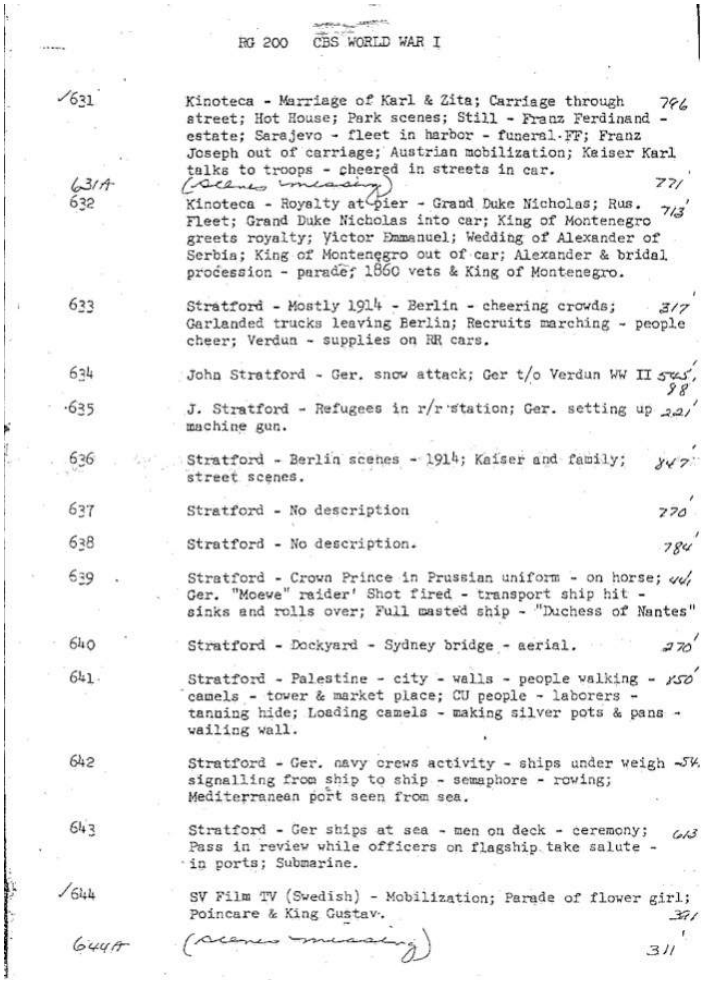
10. DESCRIPTION OF RECORDS: All of the motion-picture film referred to by the Signal Corps, Department of War, as the Historical or edited film and the A. E. F. or unedited film consists of scenes pertaining to the World War and Army activities in the United States.

Jas. W. Cummings

James W. Cummings

Figure 1. Summary of the National Archives' acquisition of the 111-H Signal Corps Collection. June 13, 1940 [Source: "111 H Accession File," NARA 111-H]

Rather than a government agency or military branch, a broadcast television network gave NARA the films, metadata, and finding aids within the CBS-WWI record group. The materials had been compiled by CBS to produce a twenty-six-episode series, *World War One*, for the fiftieth anniversary of the war. The program—which aired across 1964 and 1965 on CBS and relied exclusively on archival moving images and still photos for its visuals—sourced its footage from twenty-six archives across ten nations, such as the Grinberg Film Library (US), Svensk Film (Sweden), and Kinoteca (Poland). Coming two decades after 111-H's accession and in the wake of another world war, the preservation of WWI-related motion pictures felt like more of a historical obligation than a choice. Upon CBS's donation to NARA, Joseph P. Bellon of CBS News wrote to the acting archivist of the United States, Robert Bahmer, exclaiming he was "delighted to . . . know that CBS is willing to grant [NARA] the rights . . . to the major portion of the film material which CBS gathered for its program series." Bellon adds that he "feels proud" that NARA "deems the footage an important source for historical research for years to come." The donation was incredibly generous, though it held some temporary conditions. CBS could access and use the collection in perpetuity, and the footage was prohibited from any exhibition for twenty years, until 1985. [10]



RG 200 CBS WORLD WAR I

631 Kinoteca - Marriage of Karl & Zita; Carriage through street; Hot House; Park scenes; Still - Franz Ferdinand - estate; Sarajevo - fleet in harbor - funeral-FF; Franz Joseph out of carriage; Austrian mobilization; Kaiser Karl talks to troops - cheered in streets in car. 796

631A (Scenes missing) 771'

632 Kinoteca - Royalty at pier - Grand Duke Nicholas; Rus. Fleet; Grand Duke Nicholas into car; King of Montenegro greets royalty; Victor Emmanuel; Wedding of Alexander of Serbia; King of Montenegro out of car; Alexander & bridal procession - parade; 1860 vets & King of Montenegro. 713'

633 Stratford - Mostly 1914 - Berlin - cheering crowds; Garlanded trucks leaving Berlin; Recruits marching - people cheer; Verdun - supplies on RR cars. 317'

634 John Stratford - Ger. snow attack; Ger t/o Verdun WW II 545' 98'

635 J. Stratford - Refugees in r/r station; Ger. setting up machine gun. 221'

636 Stratford - Berlin scenes - 1914; Kaiser and family; street scenes. 347'

637 Stratford - No description 770'

638 Stratford - No description. 784'

639 Stratford - Crown Prince in Prussian uniform - on horse; Ger. "Moewe" raider' Shot fired - transport ship hit - sinks and rolls over; Full masted ship - "Duchess of Nantes" 441

640 Stratford - Dockyard - Sydney bridge - aerial. 270'

641 Stratford - Palestine - city - walls - people walking - camels - tower & market place; CU people - laborers - tanning hide; Loading camels - making silver pots & pans - wailing wall. 450'

642 Stratford - Ger. navy crews activity - ships under weigh - signalling from ship to ship - semaphore - rowing; Mediterranean port seen from sea. 54

643 Stratford - Ger ships at sea - men on deck - ceremony; Pass in review while officers on flagship take salute - in ports; Submarine. 643

644 SV Film TV (Swedish) - Mobilization; Parade of flower girl; Poincare & King Gustav. 391

644A (Scenes missing) 311'

Figure 2. CBS-WWI Index, excerpt.

An excerpt from the CBS index, listing the NARA identification number, the archive from which the film was sourced, summaries of varying detail, and footage length. In addition, we can often see the specific *World War One* episode to which the footage was assigned. [Source: NARA CBS-CBS-WWI “Index” and “Box Lists and Descriptions 1 to 663”]

Like 111-H, the CBS-WWI series at NARA offers informative metadata within its associated paper materials. Though it lacks the time-based precision of the Signal Corps’ scene-by-scene breakdown, CBS generated detailed but fragmented descriptions of the medley of people, places, and activities within given reels (see Figure 2). [11]

However, the collection also contains relatively uncommon metadata that can provide insights beyond identification and shot type. While reaching across several archives to gather the footage, the program’s researchers accordingly kept records of the reels’ provenance, allowing us to trace their origins at the twenty-six international archives (see Figure 3).

For key events of the war, the collection can offer multiple perspectives, making available readings to parse the varying coverage from both state and private film and newsreel entities. In perhaps their most novel element, the paper materials record the showmakers’ process. Whether the network mapped the outline of the show’s episodes before or after the retrieval of the footage is unclear, but we can partially trace their selection of the scenes that constituted the bulk of the show’s content (see Figure 4).

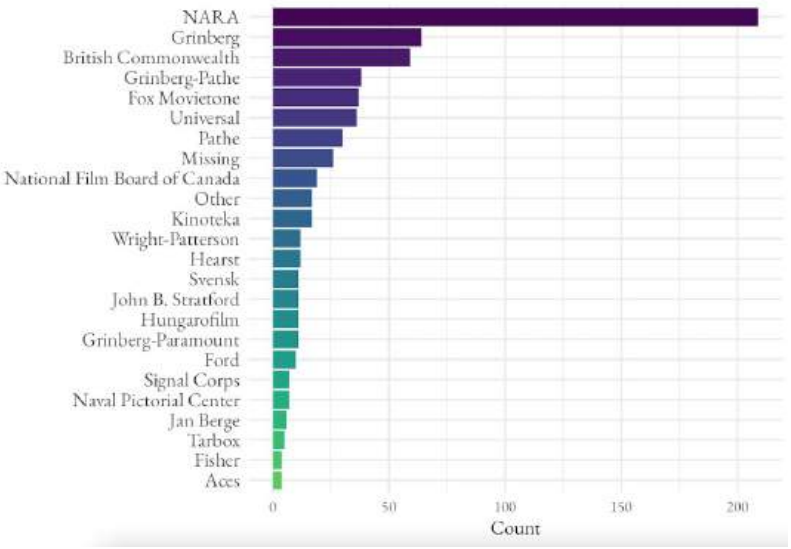


Figure 3. Source Archives for CBS-WWI Collection.
This table shows the number of titles coming from each of the various film archives from which the CBS-WWI collection was sourced (660 total titles). [Credit: Amanda Luby for analysis and visualization]

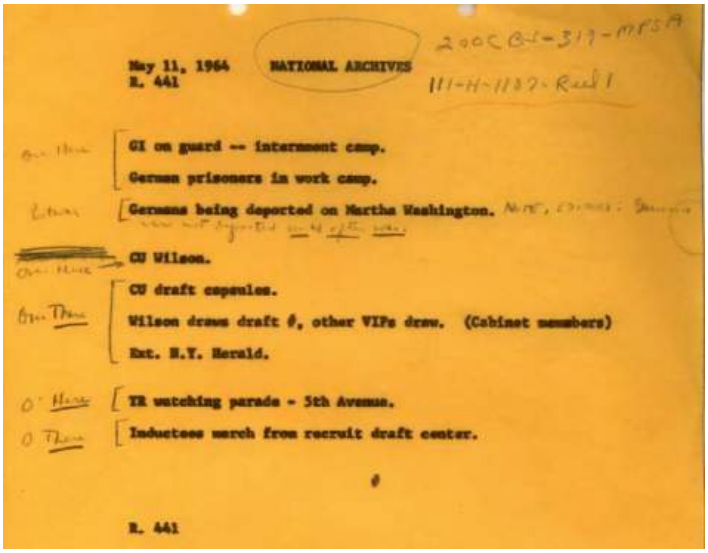


Figure 4. Evidence of CBS selection of scenes from the CBS-WWI collection for use in *World War One* episodes.
This footage was assigned to three separate *World War One* episode titles: "Over Here," "Postwar," and "Over There." This excerpt also reveals a footage provenance especially relevant to this article, showing how the entry CBS-WWI-319 drew its footage from the National Archives in 1964, specifically from reel 1 of 111-H-1107 in the Signal Corps holdings. [Source: NARA CBS-CBS-WWI, "Box List and Descriptions, 1- 663"]

Beyond the films' inherent historical value, NARA's skillful and dedicated efforts over the past eight years to describe and digitize the 111-H and CBS-WWI series have created apt collections to utilize the resources and realize the goals of MEP. First, the films face essentially no constraints from copyright issues, allowing NARA and MEP to confidently make them available to researchers, whether they seek to annotate or simply view the collection. Second, each series' extensive metadata will help scholars fully and accurately describe shots, making it more likely that we can connect and collate the films within and across collections. Third, the visual quality of NARA's 35mm scans from the 111-H series, in particular, will serve as a boon to human- and machine-based annotations of the images. Faces and places, for example, become more readable to human and computer eyes. Cuts between shots become more detectable. And connections between shots are more traceable.

Relentless Sight: The Signal Corp's WWI Films

"It is through the exploration of that impulse—a mandate to continuously and prolifically see the war in a way worthy of memory, divorcing oneself from the violent immediacy of a global event to generate a history interpretable by future generations—that the Signal Corps collection becomes more than a visual record."

Before the onset of World War I, the United States military and wider American public increasingly understood the essential role images could play in wartime communication, news, and memory. Still photography and nascent moving image technologies factored into the strategy and propaganda of the Spanish-American War, but at the turn of the century, the military had yet to develop systems through which to leverage these tools at scale. Though the Signal Corps—charged with managing all things related to communication and information networks—emerged as early as the American Civil War, it did not create a unit specifically dedicated to photography until June 1917, two months after the United States entered WWI. This Photographic Section launched with a small team of twenty-five men and was ostensibly charged with gathering still and moving images to be used for strategy, process, and reconnaissance. Indeed, for modern eyes, many of the reels held within 111-H play like wartime quotidian, a banal turning of the gears of war. But the other mission with which Signal Corps cinematographers and photographers were explicitly tasked—to produce "a pictorial history of the conflict"—reframes our relationship to the scenes. [12] It is through the exploration of that impulse—a mandate to continuously and prolifically *see* the war in a way worthy of memory, divorcing oneself from the violent immediacy of a global event to generate a history interpretable by future generations—that the Signal Corps collection becomes more than a visual record. The massive assemblage of silent, moving images is an intergenerational dialogue, prompting viewers to take what they need to tell a story, to make sense of an incomprehensible event.

When the war began in April 1917, the military quickly accepted the vital role of the Photographic Section. However, President Wilson was less certain of its value within the larger war effort. As Sue Collins notes, he exhibited "ambivalence" toward the usage of commercial film, having deemed the industry "nonessential" during the first months of the war. While the government felt more confident in the Signal Corps and the Red Cross as vessels to create and disseminate footage, Wilson still expressed "discomfort with the medium's potential to agitate the public," a fear confirmed when witnessing the "bloodlust" of many of the "Hate the Hun" pictures in the year to come. [13] Yet for Wilson and the army, the pros of motion pictures far outweighed the cons, and a laboratory was quickly acquired in Paris to develop and print with more immediacy. From there, the Signal Corps' Photographic Section consistently grew as it met increasing demands for footage. By the time of the armistice in November 1918, a team of 92 officers and 498 enlisted men served in the American Expeditionary Forces (AEF) wing of the unit in Europe, with many others shooting films domestically.[14]

During and beyond the war, the Signal Corps almost indiscriminately captured military, political, and cultural scenes within the Great War's orbit. And these efforts to build a visual history of the war have continued to pay strategic and historical dividends for later generations. Yet in their time, the images were still to be leveraged toward the active war effort, serving purposes beyond reconnaissance and historical record. They became the primary source for moving image information and propaganda during the conflict—training and mobilizing soldiers, galvanizing the

home front, and selling the American effort to audiences abroad.

Like all things media-related during World War I, the unit immediately fell under the auspices of the Committee on Public Information (CPI)—known colloquially as the Creel Committee, after George Creel, its head. Though often cruel and unforgiving in his approach to managing information during the war, Creel had both an artistic and a bureaucratic sensibility for curating media. In the Signal Corps, he had an efficient operation and, in his words, "the best photographers [i.e., cinematographers] in the United States."[15] By September 1917, after the War Department launched a Division of Films, Creel convinced the army to give CPI sole rights to distribute its films. This allowed Creel to funnel or withhold the Signal Corps' extensive moving image offerings in ways catered to his immediate needs. And often this meant sharing the footage, free of charge, with companies like Universal, Pathé, and Mutual to use in their weekly newsreels.[16] CPI could also take the Signal Corps films and repurpose them as narrative, documentary shorts, allowing it to target specific demographics and nations throughout Europe.[17]

CPI, just as historians do today, benefited from the Signal Corps' careful and precise annotation of its reels, allowing for ready identification and selection of footage to fashion particular film narratives or foster a specific inquiry. As Stewart claims, the Photographic Section relied on a "fairly complicated system . . . to ensure accurate identification of each shot." Each cinematographer diligently numbered and described their shots, after which the laboratory broke down the footage into 1,099 subjects arranged in chronological order. Once fully edited and captioned, the reels were sent to the Army War College in Carlisle, Pennsylvania, which verified the metadata and created a subject index.[18]

But to only describe the incredibly detailed indexing materials at scale abstracts the frequently granular detail with which a scene may be described. These details often have editorial touches, in which the Signal Corps officer may color or interpret the scene through colloquial or emotionally laden language. For example, for a film titled *Return and Parade of the 27th Division*, handwritten math sums up the total film length of the reel, the cost of which is later recorded in a detailed ledger.[19] Before creating a more concise summary of the scenes in the reel's final cut, the officer first generated a fuller description of the scene and how it was shot. In his summary, with a tone of pride and awe, he proclaims: "The greatest crowds in the history of New York City gather . . . forming unbroken lines of people . . . numbering between 2,000,000 and 3,000,000. . . . The parade is conceded to have been the greatest in the history of the country." And in the characterization of specific shots, particular details of color and objects imbue the annotation with poetic flare. "Directly behind the Mounted Police Escort in the line of the march was a caisson draped with a flag and bedecked with flowers and purple wreath." Within the original index cards, we can even discover notes about the shooting conditions, with one such card highlighting a set of shots captured by a cinematographer named Mackenzie that were all "photographed against the sun" (see Figure 5).

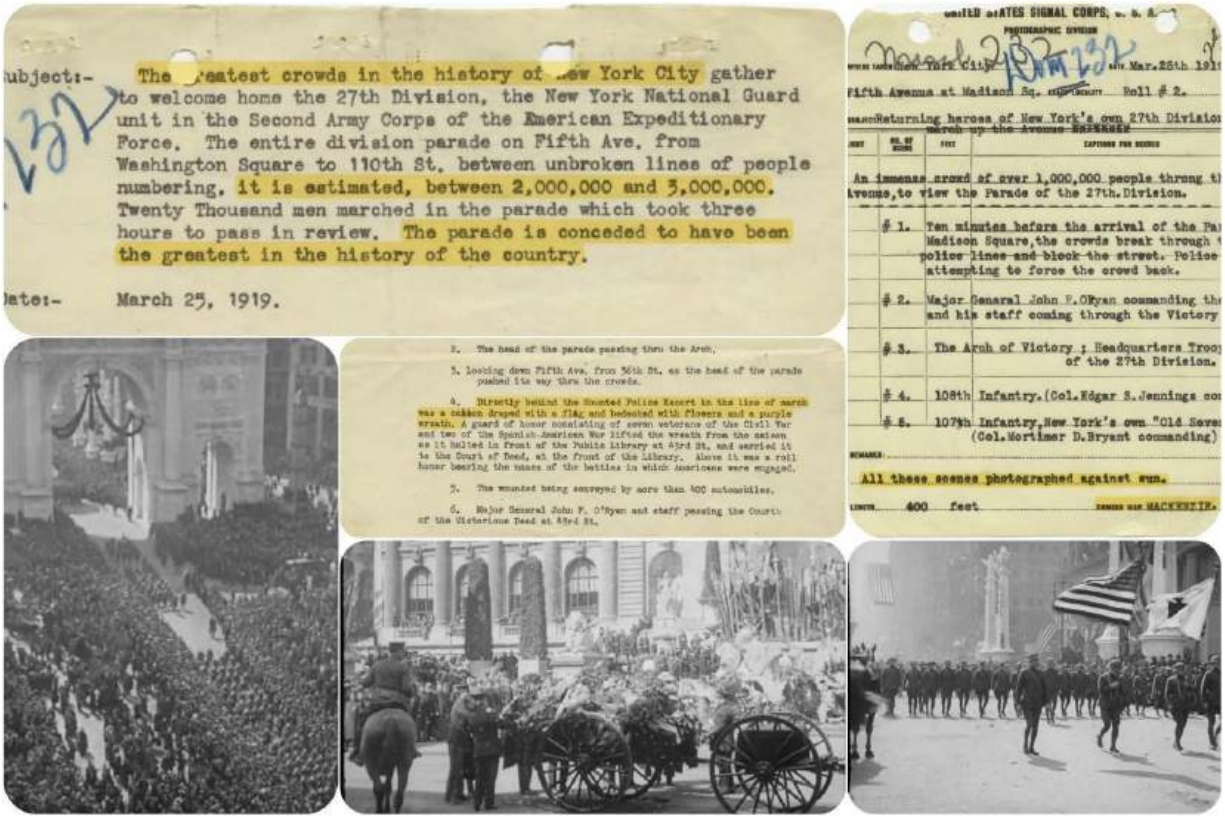


Figure 5. "*Return and Parade of the 27th Division* [1919]," selected images and corresponding descriptions in paper trail.

Top left: A grand and perhaps hyperbolic description of the New York City parade; bottom left: bird's-eye shot of the parade going through the "Arch of Victory;" center: colorful language describing a caisson honoring the dead soldiers; bottom center: image of the flower-draped caisson; top right: a summary of shots and brief note of the cinematographic conditions; bottom right: a shot from one of the "scenes photographed against the sun." [Source: NARA 111-h-1183]

In addition to the rich human idiosyncrasies traceable in the paper trail in 111-H, certain footage within the collection also provides a window into the meticulous, multistage process the Signal Corps utilized in cutting, indexing, and exhibiting its films. According to the scene breakdown of the three-reel title *Photographic Activities of the Signal Corps A.E.F., 1917–1918*, officers can be seen editing, receiving, titling, and transporting the celluloid for the "*Signal Corps 'Weekly,'* which is used for the entertainment of American soldiers."[20] Later, the film covers two separate screenings of Signal Corps movies. The first, at a theater in Paris called Salles des Fêtes in a "performance especially for the children," shows some of the four thousand French children that lined up to view the Signal Corps film *America's Effort in France*. The second, at the Gaumont-Palace theater in Paris, features a crowd of "military notables" attending the first screening of another Signal Corps title, *America's Answer to the Hun*.

In showing both its motion picture labor and the fruits of that labor, the Signal Corps, through a rare self-reflexivity, articulates its value to those watching. This recognition of its own work is subtly complemented by some extra sequences within the title that celebrate those who served in the photographic units. We witness three soldiers receiving the Commemorative Medal of Service in Vincennes, France, in April 1919. From an earlier scene in Vincennes, "Earl W. Holt" of the Photographic Section marries "Mademoiselle Gervaise Bertrand" in October 1918 alongside his

fellow soldiers. “Congratulations and kisses are in order,” the annotation notes. And on July 4, 1918, the “French girls employed by Pathé Frères” give a wreath of flowers to the men working in the Signal Corps photography laboratory (see Figure 6).

Figure 6. “*Photographic Activities of the Signal Corps A.E.F., 1917—1918*,” (1918), selected images.
[Source: NARA 111-h-1400]

The films within the 111-H collection—a product of the Signal Corps’ profound scope of operations, the units’ scrupulous attention to detail, and the individual eyes of its talented cinematographers and editors—are difficult to characterize as a whole. The Photographic Section itself, in fact, relied on over a thousand subjects to index its materials. However, in working through the 470 titles, significant themes that may sharpen our historiographic approaches to the collection begin to emerge. Many films cover familiar territory but enable us to apply a higher-power microscope to these well-trodden subjects. As much as some titles can be readily categorized, others resist labels, showing us sides of the war and its surrounding years that have yet to be explored.

At the risk of reducing the complexity and richness of 111-H, I suggest six categories, with examples, through which researchers can engage the collection. To an extent, these labels may align with the priorities of Signal Corps at the time of filming, but they also accord with our current historical interests, elevating the subjects that may have been commonplace or marginalized during that era. Beyond organizing the film for basic inquiry, these categories can be a first step toward increasing granularity within our own annotative steps via the tools of MEP. With broader identifying categories guiding the initial stages of research, we can more readily and accurately identify and mark people, actions, objects, and places.

A focus on process

In times of war, a filmic articulation of process can foster participation, build camaraderie across several interconnected operations, and signify the capacity for victory. Toward more pragmatic ends, an exhaustive visual record helps maintain consistency across the various cogs of total warfare during and beyond the conflict, allowing for the replication and evolution of different procedures. Accordingly, Signal Corps produced several titles capturing the processes of manufacturing, training, and weapon and equipment tests. Though many of these rely on a similar narration—a linear story going from an unpolished soldier or a handful of raw materials to a polished tool of war—a few titles take steps to dramatize the process, at times even adding levity. Within the majority of films in this category, we can gain deeper insight into the machinery of war and the

inevitable entropy caused by small human moments.

In a three-reel title, *Draft and Mobilization Activities*, we see the stages necessary for human preparedness.[21] However, in what may otherwise be a mundane or stressful process leading up to active combat, the film, through novel and diverse cinematic stylizations, renders the experience as an exciting, fun, and compelling test of one's mettle. It mixes documentary footage with staged, narrated scenes, moving between various camera distances and movements, putting the film's subjects—some of whom may be hired actors—in makeup, utilizing conventional Hollywood lighting techniques, and injecting clever titles between scenes. For example, one sequence, designed for productive levity, explains the drafting process by featuring Woodrow Wilson and other military leaders pulling their own draft numbers while blindfolded (see Figure 7). We then transition to a larger draft board in a city square, with crosscuts to a cheering crowd joyously celebrating each number's selection. In this scene and others, the title parlays the actions and words of known American leaders like President Wilson and Teddy Roosevelt into effect, powerfully couching the mobilization of troops in the advertised righteousness of the cause.

Figure 7. "*Draft and Mobilization Activities*" (1917), selected image.
[Source: NARA 111-h-1107]

Two other titles stand out within this category—one for its anthropomorphizing of a weapon, conflating the finished product with those who made it, and the other for the intimacy of human images juxtaposed with the process of making gas masks, objects tethered to the brutal conditions of chemical warfare that soldiers faced. The first, another three-reel entry named *Manufacture of Military Aeroplanes, 1917–1918*, renders the stages of its production as grandiose, if not heroic.[22] The film highlights home front workers chopping the wood for the planes, engineering the design plans, and piecing together the smaller parts. So much attention is allotted to the shared labor necessary to build such a massive weapon and also the individual artisanship needed to make it fly. And before we see it take to the sky, the film proudly displays the finished product, the "Handley-Page bombing machine, the Made-in-America flying giant, which carries destruction by the ton." As the workers put the final touches on it, the camera, as if shooting a movie star's marquee scene in a Hollywood film, slowly pans over the plane's massive width and cuts to a close-up of its base, revealing the craftmanship of the finished product.

The second title, *Manufacture of Gas Masks, 1918*, unintentionally conveys a different tone, despite utilizing a similarly linear—albeit much shorter—sequencing.[23] Our historical distance, knowing the horrors of chemical warfare, gives the process a vastly different flavor. Like *Aeroplanes*, the film features both the assembly line and artisanal workers. But as the object of manufacture, a gas mask, takes shape, the film builds a sense of dread rather than triumph as careful hands carve out and prop up the outlines of a rubber face. And throughout the process—given the smaller, more hands-on scale of its manufacturing—these hollowed-out faces of the gas masks are paired with close-ups of the humans making them, smiling as they stare directly into the camera (see Figure 8).

Figure 8. "*Manufacture of Military Aeroplanes, 1917—1918*" (1918) [left images] and "*Manufacture of Gas Masks*" (1918) [right images].
When juxtaposed alongside one another, the films' images reveal a similar manufacturing sequence but evoke quite different tones. [Sources: NARA 111-h-1174 and 111-h-1204]

Combat life

Unsurprisingly, many of the Signal Corps films feature actual combat and scenes in the periphery of that combat. In addition to shots of "hot" conflict, this category can include sequences showing life in the trenches, transport and combat vehicles in motion, brief stints of leave in occupied territories, and animated films designed to suggest strategy or record troop movement for posterity. For example, *Gas Alarm*, a film absorbed by Signal Corps from "British sources," shows the actual usage of gas masks in the throes of battle.[24] Though designed to instruct soldiers on their proper usage, many shots illustrate the horror and squalor of trench warfare. In a much lighter, combat-adjacent film titled *Leave Activities in the A.E.F.*, we follow American soldiers in their brief reprieve from active warfare.[25] Scenes follow their trip through the Basses-Pyrénées region of France as they explore Château-Vieux, enjoy the beach, and visit the casino. And in an animated film acquired from France in the 1920s by the Signal Corps, which describes troop movements in the Battle of Matz from June 1918, we can trace how the unit used such titles to learn about and refine military strategy.[26] In the film's corresponding annotative data, the summary goes well beyond a listing of scenes. It offers a retrospective analysis of strategy with such comments as: "The error committed on the Aisne by trying to preserve the integrity of the last position must not be repeated. We shall carry on the fight throughout the depth of our defensive organizations" (see Figure 9).

Figure 9. [from left to right] "*Gas Alarm*" (ca. 1918), "*Leave Activities in the A.E.F.*" (1919), "*The Battle of Matz, June 9—13, 1918*" (1918), selected images.
[left top] "What the sentry sees"; [left center] "Fatigue party caught by gas cloud"; [left bottom] "Battn. Commander leaves dug out during gas attack" [Source: NARA 111-h-1121]; [right top] a "party of American soldiers…standing on the sea-wall that was built by Napoleon"; [center bottom] "Enjoying the outlook from the ocean side of 'Villa Marbella'" [Source: 111-h-1338, r1]; [right center and bottom] Animations revisiting strategies in the Battle of Matz [Source: 111-h- 1146].

Though these different elements of life in combat can be found across multiple titles, a few, such as *Occupation of Center Sector (Lorrain), October 15–November 4, 1918, 88th Division* (1918), encapsulate all these various components while following a single division in a defined location—in this case, the region of Belfort, France.[27] The film is a tight six minutes but nevertheless gives access to real and staged sight lines of the WWI combat experience. Dramatic aerial shots give a bomber's view of the Rhine–Rhône River. The camera pans across close-ups of soldiers' resolute faces as they prepare for a charge. Amid waving grass and plumes of smoke, these soldiers mount their Browning machine gun to return active fire. A tracking shot moves with the soldiers' march as they smile after apparent success on the battlefield. And back in the town center of Valdoie, through a series of beautiful and creative shots, soldiers learn French from local children, bathe their tired feet in the river, experience romance, and mourn the fallen.

Mobilizing the homeland: Leaders and celebrities in action

Much of the footage related to combat life was shot on the European front and processed in the Signal Corps lab outside of Paris, but the Photographic Section also had a robust presence on the domestic front. Many of these titles aligned with the aforementioned category of process, but several also aimed to mobilize and motivate soldiers and citizens in the homeland while the war was

still ongoing. Considering the pervasive isolationist sentiments before the war, the primary goal of these films was to cultivate a feeling of identification and pride in the cause. Footage of well-known figures in action, whether political and military leaders or movie stars, could create a potent, vicarious connection to the wave of total war. Therefore, many films show key leaders like Woodrow Wilson or Newton Baker, the secretary of war, giving speeches or visiting the troops in Europe.

The most interesting films within this category feature US war bond drives, which often captured Hollywood stars rousing adoring crowds. A five-reel title, *Liberty Loan Drives*, offers a series of shots showing movie stars energetically gesturing and speaking atop a platform as they rally the excited fans in the New York City crowd.[28] Douglas Fairbanks, Charlie Chaplin, Mary Pickford, and Marie Dressler—likely knowing they are on camera and posturing as citizens rather than stars—holler at the surrounding crowd. Later, a shot of a sign in downtown Hollywood urges "Buy Bonds from Sessue Hayakawa." Supported by actress Blanche Sweet and three children, Hayakawa uses a megaphone to speak to thousands as they tally the money raised on a massive board beneath the stage. These stars certainly became powerful figureheads for the loan drives, but their appearances are amplified by the context of the event. The scale of the crowds themselves (likely in the hundreds of thousands), the elaborate parades and props (e.g., a twenty-five-foot-tall cash register), and real military vehicles make the events feel large and exciting, something one cannot help but want to be a part of. If the stars sparked the people's identification with the cause, the massive crowds and romanticized recreations of war solidified that feeling of solidarity (see Figure 10).

Figure 10. "*Liberty Loan Drives*" (1918), selected images.
Actors Sessue Hayakama and Blanche Sweet, plus three young children, rally a large crowd to buy bonds at a Liberty Loan Drive in Hollywood, California. [Source: 111-h-1133 r3]

The wake of war

The bond drives were widely attended, but the celebratory parades after the armistice were incomprehensibly large, some with millions in attendance. A surprisingly significant portion of the 111-H collection captures these events, perhaps because it was more appealing for cinematographers to shoot film in times of triumph rather than fear. As much as these titles may have been an extension of the urge to celebrate the victory, they similarly have the capacity to remind those who lived through the war why they arrived at such a sense of relief in the first place. The previously explored *Return and Parade of the 27th Division* exemplifies much of this category, with several other titles made in a similar model. A more exceptional title, featuring a wartime leader and hence overlapping with the previous category, compellingly signifies the meaning of victory for a newly powerful United States to those viewing it today. *Tour of the United States by Marshall Foch*, shot in 1921, follows the supreme commander of the Allied Forces as he travels by locomotive across different regions of the United States to share in the Allied victory.[29] Beginning in New York, where he is greeted by General Pershing, Foch visits Washington to see the White House and receive an honorary degree from Georgetown, witnesses a Civil War reenactment in Richmond, cheers on a football game at Yale, pays tribute at Lincoln's tomb in Springfield, walks through the newly built war memorial in Kansas City, stands in awe of the Grand Canyon, and finally, visits with the Crow and Sioux tribes in Montana and North Dakota before returning to New York. Though listing Foch's various stops is tedious, the visual calculus of the film is far more evocative and ripe with meaning. His tour across the United States, stylized with high production values and the American iconography of a westward journey, embodies an emerging American consciousness in the post-WWI United States. A new, less federalist, and more cohesive national identity primed the country to step into its role of global hegemon after the second World War (see Figure 11).

However, this category is not exclusively celebratory in tone. After millions of deaths and a legacy of trauma on a global scale, many titles adopt a more solemn approach. To remember the war is to remember not only the victory but also the cost of that victory. The title of the two-reel film *Activities of Graves Registration Service, France, 1919–1921* sounds prosaic and bureaucratic.[30] The language of the film's annotations adopts a similar, matter-of-fact timbre. However, the film's images are among the most striking and resonant of the 111-H collection. Knowing its stark footage would be unusable for movies made for the wider American public, the Photographic Section prohibited distribution of the reels. Watching the film almost feels like a violation of a private trauma, but perhaps the Signal Corps recognized the images would eventually need to be revisited and understood.

Figure 11. "*Tour of the United States by Marshall Foch*" (1921), selected images.
[clockwise from top-left] Foch with General Pershing in New York City; visiting the White House; receiving an honorary degree at Georgetown University; participating in a Civil War reenactment in Richmond, Virginia; on the field at a Yale University football game; honoring Abraham Lincoln in Springfield, Illinois; observing the opening ceremony at a new WWI memorial in Kansas City, Missouri; looking out over the Grand Canyon in Arizona; speaking to a Sioux leader in Bismarck, North Dakota; standing at the back of his personal train taking him across the country; and gazing out the window at the end of his journey. [Source: NARA 111-h-1113]

The title begins with an aerial shot of servicemen digging hundreds of military graves, arranging rows of the familiar white cross markers. Within the ruins of the trenches, fellow soldiers delicately wrap unrecognizable human remains. In the following sequence, men dig up rotting wooden coffins hastily buried during active war. After chopping away the decaying wood, they "sift through mud and residue in the casket" to identify the fallen soldier, spray disinfectant on the body, and finally prepare a newly built casket to be sent to a military cemetery in France or the United States. In what first appears to be a grotesque and upsetting procedure, the care with which the task is undertaken paints the scene with a strange intimacy. And this care is underscored by images of scale showing the transfer and storage of the coffins. On their way to the ocean liner or train that will take them to their final resting place, for example, some coffins first drift down a canal—part of a procession of barges laden with flowers and American flags. In the concluding scenes, French and American dignitaries honor and mourn the thousands of graves at the Suresnes Cemetery, somberly complemented by a sequence of aerial and close-up pans of the sea of white crosses at the Aisne–Marne and Meuse–Argonne cemeteries (see Figure 12).

Figure 12. "*Activities of Graves Registration Service, France, 1919—1920*" (1920), selected images. [clockwise from top-left] "Panorama view of the Muse-Argonne Cemetery;" "Two men disinterring the body of a soldier and placing it on a stretcher;" "Wooden coffin being chopped from around the body;" "Remains being wrapped in a blanket;" and "Barges loaded with bodies pass in foreground." [Source: NARA 111-h-1208].

Recovering stories

World War I was a total war, not only in its operations and allotment of resources, but also in terms of the Americans who served. While essential stories of historically marginalized communities have increasingly found platforms in recent years, the predominant consciousness of WWI has eschewed the crucial role these persons played in the war. In this sense, one of the key appeals of the Signal Corps archive from a modern historian's perspective is the opportunity to help recover and highlight these stories, as many of the collection's films feature footage of the culture, labor, and bravery of a wider America. Some of these titles, though shining a light on these communities, are still rendered through a white imaginary, at times conveying the stories through racist or sexist lenses. Historians may nevertheless find value in delineating this dialectic between wider representation and a prejudiced cinematographic perspective.

Many titles, such as *Return and Parade of the 27th Division*, will occasionally include footage of underrepresented communities as part of the grander narratives of the war, often making explicit note of this inclusion within the annotations. In describing the arrival of the *Olympic*, a British ship

bringing soldiers home to the port of Hoboken, the Signal Corps officer notes of the 365th Infantry on board, “Most of the troops were negroes.” And in a film like *Manufacture of Gas Masks*, the scene descriptions make sure to gender the workers, distinguishing a “woman cementing rubber gaskets for eye lenses” from a “man folding and shaping gas masks.”

Yet a small batch of Signal Corps films are specifically dedicated to featuring the stories of communities whose roles were systematically obfuscated by long-standing historical biases, such as Black infantries and soldiers in colonial armies. A mixture of real and staged sequences, primarily from the 154th Depot Brigade at Camp Meade, the film *Training of Colored Troops* exhibits the tension between authentic documentary footage of the Black experience during the war and the usage of racist tropes by those shooting and editing the film. [31] While its production and release dates are slightly unclear, NARA places the shooting of the film between 1917 and 1918 and the actual release in 1936. The stated goal within the documentation of the film was to tell “a story . . . showing the negro soldier from the time he is shown in his home, through processing and training camps and when he receives letters from his home folks . . . stress[ing], of course, the military training phase, scene of which should be cut long.” Interestingly but unsurprisingly, the instructions order, “All pictures of white troops in this section are to be removed.” As the memo suggested, the film indeed foregrounds the “training phase,” learning marching and charging patterns, but also finding time to play music and run boxing matches. In the staged sequences, we see moments not dissimilar to other Signal Corps films, such as a young soldier receiving his draft card and saying goodbye to his family. But some of the other dramatized scenarios likely prompted the film’s actors and subjects to perform in a manner aligned with racist idioms of the time (see Figure 13). [32]

Figure 13. “*Training of Colored Troops*” (1918), selected images.
[clockwise from top-left] A staged sequence in which a man and his family receive notice of his selection for military service; Soldiers doing “bayonet drills;” A man dances along to the music of the “Receiving Station Jazz Band;” A group of officers talking; “A staged sequence in which family members of Edward Johnson of the 301st Engineer Corps receive news that he has arrived overseas.” [Source: NARA 111-h-1211]

Though shot by the Cinematographic Division of the French army, another film within the Signal Corps archive, *French Colonial Troops in the War*, takes us through several locales under French colonial power and highlights the training and contributions of the soldiers from outside the major Allied nations.[33] As with *Training of Colored Troops*, we should welcome a dialectical reading of the film mapping the oppressive power dynamics imposed by colonial France onto the narration of the film's images and intertitles. Indeed, the film begins with a bold statement of France's colonial might: "The World War has stretched its tentacles for men into the farthest corners of the globe; in gallant reply to the call for aid, the French Colonies have nobly responded." This opening speaks to the colonialist ideology, aiming to signify the unity, breadth, and power of those under French rule. Still, the title offers rare footage of WWI soldiers from Southeast Asia, Africa, and Guyana worthy of historical attention. The film does not shy away from specifically championing the important role of colonial troops. For example, before showing scenes of Senegalese soldiers training, relaxing, and entering the front, the intertitles state, "No greater bravery in action or fortitude under trying circumstances has been shown by any of the Allied forces than the Senegalese . . . [who] have performed magnificently."

Contextualizing the war

The final thematic category by which we may explore the Signal Corps' World War I films has little to do with the war itself. In its effort to simply record history for history's sake, the Signal Corps shot and gathered footage that may shape how we contextualize the global event. For example, perhaps as evidence of the emergence of transnational political and economic interests leading up to the war, 111-H holds footage showing the construction of the Panama Canal from 1913 and 1914, some of which is stunning aerial shots.[34] Other titles delineate the evolution of airplanes, such as *Types of Planes prior to 1917*.[35] After the end of the war, the unit also composed *Aviation, Historical, since 1919*, with an array of footage from events like Lindbergh's transatlantic flight and an unusual paper trail that features dozens of newspaper clippings to support the film's construction.[36] In a parallel fashion, the archive offers scenes of the Ohio River flood from 1915 and 1916 and the Mississippi River flood from 1927.[37] Few characteristics other than their proximity to World War I unite this category. Rather, this label is only meant to further suggest the depth and variety of the materials.

A WWI Story for 1960s America: The CBS-WWI Collection

After the second World War and the onset of the Cold War, the United States' government, military, and entertainment industries found both a need and demand to recount the story of the nation's ascendency over the course of the twentieth century. In part, these efforts sprang out of the urgency to formulate potent American mythologies to be leveraged on the transnational fronts of the cultural Cold War. Yet they also emerged at a moment in which the idea of history through film gathered momentum, when a wave of film and television documentaries sparked the imaginations of the wider American public. For a country that prided itself on relentlessly charging forward, the postwar era prompted an impulse to finally look back.

The extensive, often indexical footage gathered by the Signal Corps during and after World War I began to have greater circulation. The Signal Corps' goal to create a filmic record within the immediacy of the moment, aiding historical understanding and practical usage down the line, was being realized in various outlets, such as the popular television program *The Big Picture* (1951–

1964), which primarily relied on the Signal Corps' filmmaking apparatuses to source the show. [38] As Stacy Takacs notes, "*The Big Picture* was designed as a public operations vehicle to tell the army story to a public skeptical about the need for permanent mobilization post-WWII." [39] In this sense, a memory of past warfare could be parlayed into perpetuating the funding and culture necessary for wartime readiness. In an episode like "The Famous Fourth," which tells the history of the division that would later become part of the Strategic Army Corps, we return to the Signal Corps footage taken during WWI (see Figure 14). [40] CBS, seizing the opportunity, aired the first set of episodes in 1951, setting the stage for the release and syndication of more than eight hundred episodes into the 1970s on CBS and other television networks like ABC and DuMont. [41]

Figure 14. "The Famous Fourth", no. 546 of *The Big Picture* (ca. 1961), selected images.
[left] Title image from the U.S. Army Signal Corps show, *The Big Picture*; [right] documentary footage of the Army's Fourth Infantry Division, likely from WWII. [Source: NARA 111-TV- 546]

With the continued momentum of *The Big Picture*, alongside a wave of television documentary series in the US and Britain—such as CBS's *The Twentieth Century*, Granada's *All Our Yesterdays*, and another WWI series on BBC, *The Great War*—CBS found fertile ground to launch its own series remembering the First World War upon its fiftieth anniversary: *World War One*. Only utilizing archival footage, still photos, insightful written narration performed by actor Robert Ryan, and a compelling, adaptive score by composer Morton Gould, the series offers a loosely linear exploration of the significant events related to the war between 1914 and 1920. Interspersed within the mostly chronological time line, episodes address particular themes, such as the erosion of European dynasties and the lives of soldiers during trench warfare.

"To modern eyes, there may be little to differentiate [CBS's *World War One*] series from other television documentaries of the era. The rhythms and tones are conventionally paced and executed, it heavily privileges the American perspective, and the story rarely challenges the dominant historical narratives. But the sheer wealth of archival footage, much of which had never been seen before the airing of the program, must have transported audiences, reactivating a diminishing memory for those who lived through the war and creating a whole new one for those who did not."

Though it originally aired in Tuesday's prime-time 8:00 p.m. slot, and later 6:30 p.m. on Sundays, ratings were consistently low for the program. Critics widely praised the series, at times equating the low ratings with a quality the wider public was incapable of recognizing. Upon its premiere in 1964, *Television* magazine mused: "CBS enters the competitive picture at 8 with *World War I*. It's likely to be a favorite program of history students and buffs, but like most such documentary programs . . . it doesn't figure to pull a great audience."[42] By year's end, the prediction bore out. In a November "Consensus" piece tallying critical reviews of television shows, the magazine notes it received sixteen positive reviews, with zero negative or neutral reviews. One critic suggests it "gives promise of being a first-rate pictorial essay on warfare" (Skreen). Another argues: "The best thing about *World War I* is simply that it is on the air. In a television season generally dominated by escapist hogwash, the mere scheduling of such a program in primetime is almost an act of heroism" (Du Brow). [43] To modern eyes, there may be little to differentiate the series from other television documentaries of the era. The rhythms and tones are conventionally paced and executed, it heavily privileges the American perspective, and the story rarely challenges the dominant historical narratives. But the sheer wealth of archival footage, much of which had never been seen before the airing of the program, must have transported audiences, reactivating a diminishing memory for those who lived through the war and creating a whole new one for those who did not.

Like *The Big Picture*, CBS's *World War One* is in dialogue with the dynamics of the cultural Cold War. John Lemza argues *The Big Picture* "served as a vehicle for directed propaganda, scripted to send important Cold War messages" and "important Cold War themes, such as anticommunism," meant to "sell Americanism" as part and parcel with other US propaganda efforts. [44] Because *World War One* was not an extension of the armed forces, its narration and themes are more indirect and less pronounced. Indeed, many of the episodes, when watched independently, may have no apparent connection to Cold War sensibilities. But when viewed together and in sequence, it becomes clear that the episodes are positioned to tell a deterministic history. The events of World War I precluded a global, interconnected, but unstable world in which the United States was destined to take leadership after a second international conflict. Accordingly, the righteousness of America's involvement in the First World War predicted its role in the second—a strong and steady hand to end the war, poised to dictate global affairs in its wake. Taken as a whole, this message was quintessentially Cold War.

In light of the context surrounding the show and the story of the network's efforts to muster materials from twenty-six different archives, the CBS-WWI collection at NARA presents novel opportunities for scholars researching the WWI era or historiographies of archival collection and management. The size of the record group, 660 unique titles and 751 reels, ensures a tremendous variety of footage covering WWI and the decades bookending it. [45] But the sourcing of the reels and the intent behind their curation differentiate it from the 111-H materials in noteworthy ways. Whereas

the Signal Corps materials were created and edited by officials trained in similar ways to satisfy a unified mission, the provenance of the CBS-WWI films is tied to twenty-six archives from all over the world, offering a multitude of cinematographic perspectives on important figures and events. And the scope of the CBS researchers' assignment gives the collection an added layer of complexity. In their goal to thread together a multidecade and multinational narrative, a million feet of film into a thirteen-hour documentary, they had to cast a massive net. The result, supplementing the rich wartime-focused material, is an incredible medley of footage diffusely tracing the flow of culture and politics in the first third of the twentieth century.

When weighing the finished product of CBS's *World War One* documentary against the available footage, we gain insights into historiographic processes meant to construct popular American memory. Within the network's paper trail, we can find handwritten notes selecting portions of given reels for particular episodes in the chronology of the war. In this sense, the task of identifying umbrella themes with the CBS-WWI record group—as I did with 111-H—has already been completed by the network. Researching the collection may be best served, then, by zeroing in on very specific subjects, not only to unearth long-unseen footage but to observe the nuts and bolts of selecting what we collectively remember.

Therefore, it is productive to simply isolate standout, unusual, or exemplary fragments within the CBS-WWI archive to highlight both the amazing breadth of what is available and the specificity with which we approach selected topics. In finding these fragments, we can begin to speculate why CBS's researchers allotted value to the footage and how they may have situated it within their grand American narrative of World War I. Though the researchers' reel summaries typically identify the shots—with very little context—they rarely analyze them or explain their purpose.

The original dates of the collection's footage go all the way back to the late 1890s, perhaps revealing some of the earliest filmic records of people and places. And in some cases, buried within the mishmash of clips on scantily annotated reels, we may find scenes completely unexplored by film historians. For example, though described only as a Grinberg–Pathé reel with scenes of "New York City, 1898," the entry CBS-WWI-118 shows crowded New York streets at the tail end of the Gilded Age.[46] Upon further viewing, we see the reel go beyond the description within the guide, also featuring "Fashions" from New York in 1905, with shots of elaborate dresses and parties on the state's coastline. And concluding the reel, we witness San Francisco in 1906 through the eye of a camera attached to a streetcar. In title 173, another sparsely labeled reel describes the Grinberg–Paramount film as "1904-working girl."[47] What we may assume to be a filmic remnant of working-class life at the turn of the century is in reality a complicated and exciting eighteen-minute hodgepodge of footage drawn from the first twenty years of cinema. Why Grinberg–Paramount created the scene medley remains unclear, but its offerings are certainly worthy of exploration. Some allusions within the reel, such as *The Gay Shoe Clerk* (1903) and *The Perils of Pauline* (1914), may be familiar to scholars of early cinema. However, clips from what appear to be other silent era titles such as *Rosie the Needlewoman* and *The Office Wife* (ca. 1906) may be yet unaccounted for within film history (see Figure 15).[48] Beyond this, researchers can find other early scenes of America, like the 1916 Republican Convention in Chicago, the New York Giants' training camp in 1917, and a dedication to a new steel mill in Homestead, Pennsylvania, in 1917. [49]

Figure 15. CBS-WWI nos. 613, 96, 653, and 649; selected images.
[clockwise from top-left] Likely during the Bosnian Crisis of 1908, a “sailor” in front of the parliament building in Budapest yells among other Hungarian protesters on October 27, 1908 [Source: NARA CBS-CBS-WWI-613]; A member of Sinn Féin poses with a gun [Source: NARA CBS-CBS- WWI-96]; A tram and motorcar pass by the opera house in Vienna, Austria [Source: NARA CBS-CBS- WWI-653]; People visit the “Russian Fair” at a festival in Malmo, Sweden in 1914 [Source: NARA CBS-CBS-WWI-649].

The CBS collection, partly due to its sourcing from twenty-six international archives, also gives access to events outside of the United States taking place before the war. The majority of this footage was obviously compiled to narrate the geopolitics leading into the war, but some of the material that may have felt superfluous to the CBS researchers captures vignettes of life and culture. CBS-WWI-613, sourced from Hungarofilm, highlights demonstrations and “revolutionaries” in 1908 Budapest. Reel 96 provides a window into some early actions of the Irish Sinn Féin. A mobile camera in 653 takes us through the streets of Vienna in 1911, past its opera house and parliament. And 649, showing an almost surreal prewar Europe, takes us to a Russian section of the fairgrounds in 1914 Malmo, Sweden (see Figure 15).[50]

Like 111-H, the CBS-WWI materials make available all the harrowing, profound, and terrible nooks and crannies of World War I. As we move beyond 1920, however, the availability of films decreases, going no further than a reel from 1937. The available metadata concerning the wartime and postwar footage pales in comparison to 111-H, but in tracking the frequency with which a subject emerges within the collection, as well as its placement in the finished documentary series, we can learn about the priorities of the show creators and the methods by which their historiographic vision is realized.

Studying the quantity and arrangement of footage about or from the Soviet Union proves an apt starting place to engage with these methodological questions. Russia, through both its participation in and exit from the conflict, undoubtedly played a central role in World War I, which would warrant research of the nation regardless of Cold War interests in 1964. Yet *World War One* narrates these actions in a manner that transcends the parameters of the era and welcomes a retrospective reading of this liminal period in the nation's history. In the program itself, four episodes give extensive attention to Russia and, later, the Soviet Union. And two, "Revolution in Red" and "The Allies in Russia," are specifically dedicated to the subject. The former, which is surprisingly objective in its narration describing the conditions that led to the 1917 Bolshevik Revolution, cannot help but connect that moment to its own time, coloring it with contemporary sensibilities. "The disillusionment and despair [in Russia] spelled doom for the czarist regime," Robert Ryan says, opening the episode. "There will be only one winner. A revolution with a blood red flag. A revolution that will shake the world for decades to come." [51] Footage related to Russia within CBS-WWI's 751 reels, accordingly, shows up quite frequently. Some of what is available, such as a scene from a Kinoteca reel showing Lenin speaking from a balcony in item 623, makes its way into the actual documentary.[52] But a large portion remained unused by CBS, like shots of Lenin's "hideout when in exile" during the summer of 1917, a humble straw hut outside of St. Petersburg. Rather than featuring these details, the documentary sardonically states that "the leading Bolsheviks, including Lenin, [were] strangely absent when Kerensky's troops opened fire." [53] In this particular case, the absence of footage is subtle, and the tonal shift in narration is brief, but the paper materials—showing us what was available to CBS—can help us piece together these examples over time to make larger historiographic conclusions.

Making the Archives Converse: How the Tools of the Media Ecology Project Can Facilitate Research of NARA's 111-H and CBS-WWI Collections

I have used a broad brush to suggest how we may navigate the 111-H and CBS-WWI collections. I have also zoomed in on extremely specific examples, sometimes highlighting just a few seconds of footage. This methodological tension speaks to the fascinating but oblique variables that differentiate the two ways of memory each series embodies. The Signal Corps films seek to create a filmic memory for posterity, trusting future generations to determine its meaning. CBS, on the other hand, recovered materials—some from the Signal Corps—to carve out that meaning in the grammar of its own moment in history. The gap between these two approaches—and the space between these two ways of memory—underscores the complexities and obstacles researchers are likely to face when exploring the two massive series. Yet it also suggests how the various tools of Dartmouth's MEP can mitigate these difficulties and foster pointed and meaningful inquiry into and across the two collections.

The underlying ethos of MEP, which informs the design and usage of its tools, revolves around the notion of a "virtuous cycle." Just as archivists and institutions, such as NARA, provide us access to and information on an impossible wealth of materials, researchers with MEP "contribute back to the archival community through fluid contribution of metadata and other knowledge." [54] Part of this principle is respectful collaboration and open communication between scholars, archivists, and the wider public. When research takes on such a communal or "crowdsourced" approach, it becomes possible to tackle large collections like 111-H and CBS-WWI.

MEP's principles have pragmatic counterparts, however: a host of digital tools that facilitate powerful networked scholarship. Similarly to how I suggested broad themes for the 111-H collection,

MEP productively leverages scholars' labor and expertise to design entry points to large motion picture archives such as these. Relative to the detailed paper trail we already have available in CBS-WWI and 111-H, the cutting-edge Semantic Annotation Tool (SAT) is particularly equipped to lay the groundwork for smoother and better inquiry in the future. With the Signal Corps films, for example, we can use the incredibly specific and thorough, time-based scene descriptions to make more precise time-based annotations of our own. For a simple case, take *Liberty Loan Drives*. In scene 66, we have a "close-up of Marie Dressler and Charles Chaplin in the crowd trying to sell bonds. Army band is in background." Using SAT, we can enter that annotation at the specific time mark at which it occurs. So when a researcher looks for footage of Charlie Chaplin, they can go right to this specific moment in this specific title.

One of SAT's mechanisms allows us to draw any polygonal shape around an object in a frame and then uses AI to maintain the designated perimeter around that object within a defined period of time. This visual data can be used to train computers to read other moving images at scale in the future. In other words, in this roughly fifteen-second shot in which Chaplin and Dressler perform a silly dance step to the army band behind them, we can annotate the faces or the type of movement (dance), making it more likely that a computer will recognize these elements in other films (see Figure 16).

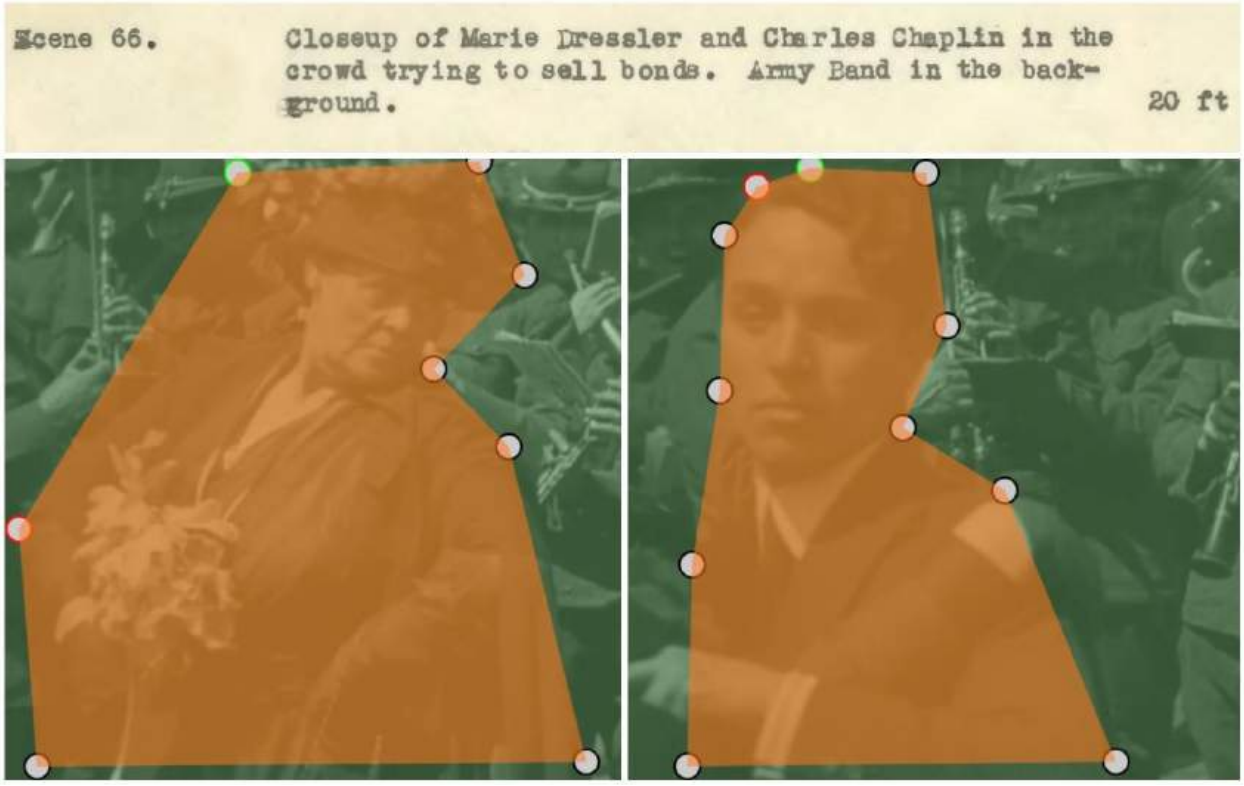


Figure 16. Description of a shot from a 111-H file and, beneath it, the graphic annotation made using SAT.

Much of this metadata can then be situated within a new platform for MEP—Airtable. In essence, Airtable is online workbook software that is more dynamic than Excel. It can be organized in a manner that makes searching across and collating several related collections, such as all the Early Cinema projects, quite manageable. It also allows for multiple output formats, opening the door for more out-of-the-box projects involving methods such as the data analysis of run time or film format relative to a film's subject matter. With the metadata in 111-H, for example, we can coordinate

with Buckey Grimm's essential work on Signal Corps cinematographers, pairing specific titles to the camera operators who shot them. And between CBS-WWI and 111-H, we can begin to take on tasks like identifying the multitude of footage covering a single event, quantifying how frequently names or places appear or footage overlaps between the series.

One tool that we have only begun to utilize, though it has tremendous potential, is an automatic, AI-driven cut detector. The 111-H series is likely to work particularly well with this tool, as most of the films come from 35mm film stock that NARA recently digitized, processed through a cutting-edge HD scanner. Furthermore, compared to recent filmmaking styles, the cuts within the Signal Corps films are more slowly paced, with more graphically differentiated shots on each side of the cut. The detector can provide data-driven insights into the cinematographic and editing styles of the collection, opening doors to other questions on topics like aesthetics and reception. And given the tool is still being refined and trained, such a well-preserved and consistent set of films like 111-H will make it more likely we will be able to use it on other black-and-white titles that are more complicated or come from lower-quality film stock.

World War I sits at the nexus of sweeping geopolitical, economic, cultural, and technological change. The surprising breadth of the motion pictures from the WWI period—still an emerging medium at the time that, in some ways, welcomed in the era—compels us to return to the event and interpret and reinterpret it on a continual basis. And now, with newfound access, tools, and a growing ethos of communal scholarship embodied by projects like MEP, we have more opportunity than ever to map the evolving memories of World War I.

A list of external links featured in this essay can be found here. [55]

About the Author

Bret Vukoder, Ph.D., is a scholar working in film and media studies, Cold War history, and literature. With Dr. Hadi Gharabaghi, he recently co-edited a special issue, 'Motion Picture Legacies of the USIA' (2022), in the *Journal of e-Media Studies*. He is the co-head of the USIA and NARA-WWI pilots within Dartmouth College's Media Ecology Project (project leader: Mark J. Williams). He also currently serves as a Senior Consultant on an NEH Collaborative Research Grant, 'Legacies of USIA Moving Images through International Lenses' (2023). He earned a Ph.D. in Literary and Cultural Studies at Carnegie Mellon University in 2020 and now works as an Adjunct Assistant Professor in Temple University's Film and Media Arts program.

---

[1] Within the National Archives catalog, the record group for the CBS materials is actually labeled "CBS-CBS-WWI." For added simplicity, however, I will label the collection as "CBS-WWI" throughout this paper. Within NARA's online catalog, the collection will be discoverable whether "CBS-CBS-WWI" or "CBS-WWI" is entered as the search term.

[2] NARA uses a "4-stream SAMMA robotic system" to transfer videotape holdings into digital. For more information, see archives.gov/preservation/products/definitions/proj-samma.html.

[3] Criss Austin (Christina Kovac), "America's World War I Collection," *Journal of Film Preservation* 90, no. 4 (2014): 57–60.

[4] See catalog.archives.gov and youtube.com/c/USNationalArchives.

[5] "Accession Files," Record Group 111, "Historical Films, ca. 1914–1937" ("H" series), Records of the Office of the Chief Signal Corps Officer, 1860–1985, National Archives and Records Administration, College Park.

[6] Austin, "America's World War I," 57–58.

[7] "Accession Files." 111-H.

[8] Austin, “America’s World War I,” 58.

[9] Philip W. Stewart, “BATTLEFILM: Motion Pictures of the Great War,” *Prologue* 40, no. 2 (2008), online.

[10] “Accession File,” “Columbia Broadcasting System, Inc., Collection, 1953–1982,” Motion Picture Newsreels Films Used for a Documentary Series on World War I, ca. 1908–1930 (series), National Archives and Records Administration, College Park.

[11] Though each entry is typically more a “shot” than a “scene,” I use the word “scene” throughout to match the lexicon found within the 111-H documents.

[12] Stewart, “BATTLEFILM.”

[13] Sue Collins, “Film, Cultural Policy, and World War I Training Camps: Send Your Soldier to the Show with Smileage,” *Film History* 26, no. 1 (2014): 20.

[14] Stewart, “BATTLEFILM.”

[15] Researchers such as Buckey Grimm (a contributor in this issue) and Cooper C. Graham have inaugurated exciting research into many of these talented cinematographers. For example, see Cooper C. Graham, “The Kaiser and the Cameraman: W. H. Durborough on the Eastern Front, 1915,” *Film History* 22, no. 1 (2010): 22–40, and Cooper C. Graham and Ron van Dopperen, “Edwin F. Weigle: Cameraman for the *Chicago Tribune*,” *Film History* 22, no. 4 (2010): 389–407; quoted in Alan Axelrod, *Selling the Great War: The Making of American Propaganda* (New York: St. Martin’s Press, 2009), 150.

[16] Collins, “Film Cultural Policy,” 21.

[17] Axelrod, *Selling the Great War*, 151–54.

[18] Stewart, “BATTLEFILM.”

[19] *Return and Parade of the 27th Division*, NARA 111-H-1183, Record Group 111, “Historical Films, ca. 1914–1937” (“H” series), Records of the Office of the Chief Signal Corps Officer, 1860–1985, National Archives and Records Administration, College Park (1919).

[20] *Photographic Activities of the Signal Corps A.E.F., 1917–1918*, NARA 111-H-1400 (1918).

[21] *Draft and Mobilization Activities, 1917–1918*, NARA 111-H-1107 (1918).

[22] *Manufacture of Military Aeroplanes, 1917–1918*, NARA 111-H-1174 (1918).

[23] *Manufacture of Gas Masks, 1918*, NARA 111-H-1204 (1918).

[24] *Gas Alarm*, NARA 111-H-1121 (ca. 1917).

[25] *Leave Activities in the A.E.F., 1919*, NARA 111-H-1338 (1919).

[26] *French Animated Battle Map: “The Battle of Matz,”* NARA 111-H-1146 (1929).

[27] *Occupation of Center Sector (Lorrain), October 15–November 4, 1918, 88th Division*, NARA 111-H-1286 (1918).

[28] *Liberty Loan Drives*, NARA 111-H-1133 (1917).

[29] *Tour of the United States by Marshall Foch*, NARA 111-H-1113 (1921).

[30] *Activities of Graves Registration Service, France, 1919–1920*, NARA 111-H-1208 (1921). This is the official NARA title within the catalog, but within the title's indexing materials, a handwritten note revises the ending year from 1920 to 1921.

[31] *Training of Colored Troops*, NARA 111-H-1211.

[32] For more on this film, see Thomas Winter, "*The Training of Colored Troops*: A Cinematic Effort to Promote National Cohesion," in *Hollywood's World War I: Motion Picture Images*, Peter C. Rolllins and John E. O'Connor, eds. (Bowling Green: Bowling Green State University Popular Press, 1997). And for a brief comment, see Donald Roe, "The Significance of Motion Picture Footage Housed at the National Archives and Records Administration Relating to the African American Soldier," Rediscovering Black History (blog), National Archives, March 21, 2013. rediscovering-black-history.blogs.archives.gov.

[33] *French Colonial Troops in the War*, NARA 111-H-1153 (1919).

[34] *The Construction of the Panama Canal (1913–1914)*, NARA 111-H-1163 (1914) and *Panama Canal Operations, 1913–1914*, NARA 111-H-1164 (1914).

[35] *Types of Planes prior to 1917*, NARA 111-H-1175 (ca. 1917).

[36] *Aviation, Historical, since 1919*, NARA 111-H-1186 (1927–1928).

[37] *The Ohio River Flood, 1915–1916*, NARA 111-H-1209 (1916) and *Mississippi River Flood of 1927*, NARA 111-H-1194 (1927).

[38] Episodes of the show, many of which are digitized, are in the public domain and held by NARA in the 111-TV series. See https://catalog.archives.gov/id/36952.

[39] Stacy Takacs, "Series Editor's Foreword" in *The Big Picture: The Cold War on the Small Screen*, by John W. Lemza (Lawrence: University of Kansas Press, 2021), 8–9 (e-book).

[40] "The Famous Fourth," NARA 111-TV-546, Record Group 111, "Motion Picture Films from 'The Big Picture' Television Program" ("TV" series), Records of the Office of the Chief Signal Corps Officer, 1860–1985, National Archives and Records Administration, College Park (ca. 1963).

[41] John W. Lemza, *The Big Picture: The Cold War on the Small Screen* (Lawrence: University of Kansas Press, 2021), 35 (e-book); Nancy Bernhard, *U.S. Television News and Cold War Propaganda, 1947–1960* (Cambridge: Cambridge University Press, 2003), 142–43.

[42] "Forecast," *Television*, September 1964, 30.

[43] "Consensus," *Television*, November 1964, 74.

[44] Lemza, *Big Picture*, 19.

[45] Austin, "America's World War I," 57.

[46] [Pathê Newsreel Excerpts], NARA CBS-CBS-WWI-118, "Columbia Broadcasting System, Inc., Collection, 1953–1982," Motion Picture Newsreels Films Used for a Documentary Series on World War I, ca. 1908–1930 (series), National Archives and Records Administration, College Park.

[47] [Paramount Newsreel Excerpts], NARA CBS-CBS-WWI-173.

[48] The only possible reference to this title I have been able to find is a fragment in Getty Images citing its source as the Sherman Grinberg Library and its original title as a Paramount Screen Souvenir. Perhaps CBS-WWI-173 is another of Paramount's Screen Souvenirs. Either way, the footage in this one-minute clip is different from what's seen in the CBS-WWI collection. See https://www.gettyimages.com/detail/video/from-paramount-screen-souvenirs-probably-9-with-added-news-footage/1132589654?language=es; likely a fascinating coincidence, another film by the title of *The Office Wife* (Warner Bros., 1930) also features an affair with a stenographer, just as the clip from this silent era version does.

[49] [Stock Newsreel Excerpts], NARA CBS-CBS-WWI-122; [Stock Newsreels Excerpts], NARA CBS-CBS-WWI-71; [Stock Newsreels Excerpts], NARA CBS-CBS-WWI-125.

[50] [Hungarofilm Newsreel Excerpts], NARA-CBS-CBS-WWI-613; [Pathê Newsreel Excerpts], NARA-CBS-CBS-WWI-96; [SV Film TV (Swedish)-Excerpts], NARA-CBS-CBS-WWI-653; [SV Film TV (Swedish)-Excerpts], NARA-CBS-CBS-WWI-649.

[51] "Revolution in Red," *World War One*, Columbia Broadcasting System (1964).

[52] [Kinoteca Excerpts], NARA-CBS-CBS-WWI-623.

[53] "Revolution in Red."

[54] Media Ecology Project, "About," mediaecologyproject.dartmouth.edu/wp/about.

[55] Links Featured in "Two Ways of Memory: The Signal Corps and CBS World War I Motion Picture Collections at the National Archives"
Clip 1. *Occupation of Center Sector (Lorrain [sic]), October 15–November 4, 1918, 88th Division* (1918): https://www.youtube.com/watch?v=6t8RCnAiYZ0&ab_channel=MediaEcologyProjectUSIA
Clip 2. *French Colonial Troops in the War (1914–1918)* (1919):https://www.youtube.com/watch?v=RElbmg8Wrhc&ab_channel=MediaEcologyProjectUSIA
Clip 3. [Paramount Newsreel Excerpts], "1904-working girl" (ca. early 1930s): https://www.youtube.com/watch?v=N18LgDv26W4&ab_channel=MediaEcologyProjectUSIA

Published by the Dartmouth College Library.
Copyright © 2024 (Bret Vukoder) CC BY-NC 4.0
http://journals.dartmouth.edu/joems/
Article DOI: 10.1349/PS1.1938-6060.A.502