The Yellow Fever Epidemic of 1878 and Public Health Reform in Memphis

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Newfound Friends: America’s Asian Allies in World War II Propaganda

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Samantha Smith
Rhodes Historical Review

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The Rhodes Historical Review showcases outstanding undergraduate history research taking place at Rhodes College in Memphis, Tennessee. Phi Alpha Theta (The National History Honor Society) and the Department of History at Rhodes College publish The Rhodes Historical Review annually. The Rhodes Historical Review is produced entirely by a four-member student editorial board and can be found in the Ned R. McWherter Library at The University of Memphis, the Benjamin L. Hooks Central Public Library of Memphis, and The Paul J. Barret Jr. Library at Rhodes College.

Submission Policy: In the fall, the editors begin soliciting submissions for essays 3,000-6,000 words in length. Editors welcome essays from any department and from any year in which the author is enrolled; however, essays must retain a historical focus and must be written by a student currently enrolled at Rhodes College. Submissions are reviewed in December, with a premiere date set in April.

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On August 1, 1878, William Warren disembarked from the *Golden Crown*, the steamer on which he worked as a deckhand, and landed on the shores of Memphis, prominent cotton hub and Southern port. Like most river men, Warren ventured to the Pinch District, a poor immigrant neighborhood at the northern end of the city, probably looking for a good time of gambling and strong drink in his break from the ship. Seeking a hearty meal, he visited an Italian snack-house in the neighborhood owned by Mrs. Kate Bionda. But unbeknownst to Warren and those with whom he came into contact, including the quarantine official who had permitted the *Golden Crown* to dock in the city, he carried with him a dangerous cargo: yellow fever. He had been infected while in New Orleans, bitten by a mosquito carrying the disease. Of course, he would not have given any thought to the bite, for contemporary medicine had yet to pinpoint mosquitos as the medium for transmitting yellow fever.¹ Even when he developed a fever the next morning, likely

¹ This idea of the mosquito vector for yellow fever was first proposed by Carlos Finlay in 1881 and later confirmed in 1900 by Walter Reed, whose experiments on American troops in Cuba dispelled the previously held notion of transmission through fomites and supported transmission by mosquito.
accompanied by chills, muscle aches, and nausea, doctors at the city hospital had no reason to suspect yellow fever over the countless other diseases common in Memphis.

Nevertheless, as the case grew more suspiciously similar to yellow fever, Dr. John Erskine, Health Officer on the Memphis Board of Health, admitted Warren to a quarantine hospital. Officials burned the bedding and clothing from his original hospital room and disinfected the entire building, hoping to eliminate any infected fomites—objects, such as articles of clothing, that could spread the yellow fever germ—that would certainly thrive in the hot, humid, and filthy environs of Memphis. When Warren died on August 5, doctors would have recognized his jaundiced skin as the final confirmation that his illness had been a definitive case of yellow fever. Yet health officials, assuring themselves that Warren had contracted yellow fever in New Orleans, did not report the case, hoping to avoid creating a public panic. This very panic erupted in Memphis just one week later on August 14, however, when newspapers reported the death of Mrs. Bionda due to yellow fever, the first official case in Memphis. Health officials quickly attempted to isolate the source of the infection, closing off and disinfecting the block containing the snack-house, but these efforts came too late. Yellow fever had invaded Memphis.  

In examining the yellow fever outbreak of 1878, which infected 120,000 people across the Mississippi Valley, most scholars view the epidemic within the broader experience of

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2 The narrative of William Warren borrows from Molly Caldwell Crosby’s *The American Plague: The Untold Story of Yellow Fever, the Epidemic that Shaped Our History*, who provides her own such account, with additional facts from John M. Keating’s *A History of the Yellow Fever. The Yellow Fever Epidemic in 1878 in Memphis Tenn.*
yellow fever in the United States. Such research details the 1878 epidemic as a progression from the nation’s first significant epidemic in Philadelphia in 1793, or as a representation of the South’s experience with yellow fever throughout the nineteenth century. In contrast, this paper focuses on the 1878 epidemic as a watershed moment in Memphis history, one that permanently altered the course of the city. In terms of prestige, Memphis acquired a second-tier status among Southern cities, falling in importance relative to Nashville and Atlanta. The epidemic confirmed Memphis’s tainted reputation as a city of filth and disease, driving away valuable capital and restricting the local economy to a reliance on the cotton industry. Furthermore, the 1878 outbreak reshaped the racial dynamics of the city leading into the twentieth century. Since blacks proved more resistant to yellow fever and lacked the financial resources to relocate, the epidemic increased the proportion of black Memphians until they comprised almost half of the city’s total population. Additionally, the immigrant population shrank due to mortality and flight from the fever, later replaced by an influx of provincial farmers into Memphis. These two demographic shifts detracted from Memphis’s previously cosmopolitan nature, creating a city with increased divisions across racial lines.

Yet for all of these grand effects, the epidemic had an immediately significant impact on public health in the city, bringing about an overhaul of the city’s public health and sanitation systems to combat yellow fever. Whereas Memphis

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3 Along these lines, Crosby’s *The American Plague* provides an excellent narrative of the epidemic in Memphis before transitioning to Walter Reed’s work in Cuba at the turn of the century.

had been negligent in the area of public health before 1878, the epidemic forced the city to recognize the need for significant improvements to prevent another epidemic of yellow fever. The 1878 outbreak exposed not only the deplorable sanitary conditions in Memphis, but also the failure of the city government to address its public health woes. Therefore, the epidemic galvanized Memphis to create a powerful authority in the new Board of Health and to undertake significant reforms, including radical innovations in its new sewage system and wholesome water supply, efforts that transformed Memphis into a sanitary model for the nation.

**Memphis in 1878:**
**Economic Success and Sanitary Failure**

In 1878, Memphis was a leading Southern city, on par with New Orleans and Atlanta in terms of size and economic growth. Since the 1840s, Memphis had been a hub for the numerous cotton plantations in the surrounding countryside of the Mid-South. With its position on the Mississippi River, Memphis became the largest inland cotton market in the world, handling 360,000 bales per year and serving as a regional center of both river and railroad trade.\(^5\) Despite the economic setbacks of the Civil War, Memphis continued to grow, reaching a population of 40,000 by 1870, second only to New Orleans among southern cities.\(^6\) Memphis seemed poised to become a leading city in the “New South,” embodying the region’s pursuit of modernization in the postwar period. Yet for its economic prosperity, Memphis’s city government struggled under a massive burden of debt. Spendthrift policies, failed investments, and outright

\(^5\) Ibid., 20.

\(^6\) Ibid., 21.
corruption by local officials had drained the city’s budget. By 1878, the financial situation had become increasingly dire: the city had accumulated five million dollars of debt and was on the brink of total insolvency, attempting to take out new loans and bonds to make good on its original debts. In 1878, Memphis remained focused on economic concerns, attempting to maintain commercial growth while avoiding the financial collapse of the government.

However, Memphis’s sanitary plight remained the city’s defining characteristic and most glaring problem in 1878. As the city grew and the population increased, especially in the poor black and immigrant communities of the city, Memphis encountered mounting sanitary difficulties and ultimately degenerated into an environment of filth. The city’s cheap Nicholson street pavement, a network of cypress wood blocks and pitch completed only a decade earlier, was already “decaying and sending forth a poison that none in the city limits could avoid.” Furthermore, Memphis had no sanitary regulations on building construction, so “the cellars of the houses in the leading thoroughfares . . . manufactured noxious gases which stole out and made the night air an almost killing poison.” Since no public service existed for the collection of garbage, refuse accumulated in yards and alleys, or individuals dumped their waste into the Bayou Gayoso. Under these conditions, the Bayou, once a stream traversing the center of the city, deteriorated into a stagnant pond that

9 Ibid.
gave off the inescapable stench of the animal carcasses and human waste that filled its waters.\textsuperscript{10}

Of the sanitary woes afflicting Memphis on the eve of the 1878 epidemic, the city’s lack of effective sewage and water systems offered the most flagrant indictment of Memphis’s experience with public health. With regards to sewage, Memphis in 1878 had only four-and-a-half miles of privately-owned sewers, which served the affluent commercial areas of the city; most Memphians instead used outdoor privies, with underground vaults attached for the collection of waste.\textsuperscript{11} The contents of these vaults were either emptied into the Bayou Gayoso or left to saturate the soil until it “was reeking with the offal and excreta of ten thousand families.”\textsuperscript{12} Like the sewer system, the city’s supply of water remained outdated and inadequate for the growing population. Cisterns and wells, which collected rainwater and surface drainage, offered the predominant sources of water for both commercial and domestic use. However, these vessels were often defective and leaky, allowing seepage to contaminate their waters. In addition, these wells and cisterns served as excellent breeding grounds for the \textit{Aedes aegypti} mosquitos, aiding the introduction and spread of yellow fever in Memphis. To expand the municipal water supply and provide a water source without the sanitary drawbacks of cisterns and wells, the Memphis Water Company began drawing water from the Wolf River, a tributary of the Mississippi, in the early 1870s. While this supply initially seemed to promise a clean source of water for Memphians, the costs of purifying the Wolf River water remained prohibitively high for the Memphis Water

\textsuperscript{10} Keating, \textit{History of Yellow Fever}, 103. When Memphis experienced heavy rain, the Bayou overflowed its banks and emptied into surrounding low-lying neighborhoods, compounding their sanitary troubles.

\textsuperscript{11} Ellis, \textit{Yellow Fever and Public Health}, 27.

\textsuperscript{12} Keating, \textit{History of Yellow Fever}, 103.
Company to pursue filtration. Therefore, Memphis remained burdened by its sanitary plight as it entered 1878, with the lack of an effective sewage system or a source of pure water contributing most greatly to the city’s dire conditions.

Unsurprising in light of its sanitary state, Memphis repeatedly suffered from epidemic disease, witnessing outbreaks of yellow fever, cholera, smallpox, and malaria, and in the process the city earned a national reputation as a city of disease and filth.\textsuperscript{13} However, city leaders remained inattentive to the urgent need for public health improvements. In addition to being saddled with debt, the Memphis government placed commercial ambitions ahead of sanitary concerns, fearing that strict quarantine practices or sanitary reforms would hinder the growth of the city’s manufacturing and cotton trade. Furthermore, the Memphis Board of Health convened intermittently and remained advisory, lacking the independent authority or the funds to effect significant change; similarly, the Tennessee State Board of Health, established in March 1877 in response to an earlier yellow fever epidemic, lacked proper funding from the state until after the 1878 outbreak.\textsuperscript{14} Therefore, despite the public’s clamor for health improvements after yellow fever epidemics in 1867 and 1873, appeals that were frequently echoed in the pages of local newspapers, “attempts at local sanitation . . . were of a spasmodic character,” occurring only to temporarily mollify the public’s dissatisfaction with present sanitary conditions.\textsuperscript{15}

\textsuperscript{13} The contemporary medical consensus linked filth and waste to the organism for yellow fever, believing that toxic vapors from putrefying animal and vegetable matter provided a favorable environment for the disease.

\textsuperscript{14} Ellis, \textit{Yellow Fever and Public Health}, 34.

Meanwhile, city leaders maintained their false confidence in the city’s good health. The *Daily Appeal* newspaper, seeking to avoid a public panic over yellow fever, endorsed Memphis’s sanitary environment on the eve of the 1878 epidemic. In a reversal from previous criticisms of public health conditions, the paper proclaimed that “Memphis is about the healthiest city on the continent at present,” and that “We need not fear in Memphis. We were never in as good a condition from a sanitary point of view . . . Nothing in our atmosphere invites that dreaded disease.”\(^\text{16}\) However, J.M. Keating, editor at the *Daily Appeal* and chronicler of the epidemic, later asserted that Memphis in 1878 actually sat on the precipice of a devastating epidemic. Although Keating had the benefit of hindsight, his words rang true when he noted that “every affliction that could aggravate a disease so cruel [as yellow fever] seemed to have been purposely prepared for it by the criminal neglect of the city government.”\(^\text{17}\)

### The 1878 Epidemic and the Collapse of the City

The debate over quarantine on the eve of the 1878 epidemic represented the culmination of Memphis’s failure to take action to protect the city against disease. When rumors emerged in May of 1878 about yellow fever in the Caribbean, the Memphis Board of Health – organized only in March and comprised of three Memphis physicians, the mayor, and the chief of police – debated the issue of establishing quarantine

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\(^{17}\) Keating, *History of Yellow Fever*, 103. Regarding Keating’s account, it is also possible that he exaggerates the negligent attitude of city officials before the epidemic, which he contrasts sharply with his heroic portrayal of normal Memphians during the 1878 outbreak.
in the city. Under the proposed quarantine, Memphis health officials would inspect all ships arriving at the city’s port. If the inspector suspected yellow fever on board, or if the ship had originated in an infected port like New Orleans, then officials detained the ship for approximately seven to ten days and disinfected its cargo. The possibility of quarantine had long been a polarizing issue in the battle against yellow fever, dividing Memphis’s medical community. Consensus opinion held that localized filth in a community certainly provided the yellow fever germ a hospitable environment for widespread infection, and that the germ could be transported by fomites. However, physicians disagreed over whether the disease originated locally or first required importation into the city. For the latter faction, a quarantine program of detention and disinfection offered valuable protection against the introduction of yellow fever into the city. In contrast, opponents of quarantine denounced it as an ineffectual method of resistance as well as an undue burden on local commerce and trade.\(^\text{18}\)

Seeing the value in quarantine, Dr. Robert W. Mitchell, the president of the Board of Health, announced to the Board on June 3 that he would approach the General Council, the city’s main legislative body, to request $10,000 to establish quarantine procedures.\(^\text{19}\) After the Board endorsed this proposal by a 3-2 vote, Mitchell then took his campaign to the public. Mitchell submitted a petition, signed by twenty leading merchants, in favor of quarantining the city from July to October, the height of the yellow fever season.\(^\text{20}\) In response, Drs. Erskine and Brown, the health officer and secretary on the Board of Health, initiated a counter-petition, acquiring the signatures of thirty-two local physicians who


\(^{19}\) Ellis, *Yellow Fever and Public Health*, 41

\(^{20}\) Ibid.
opposed the quarantine as a financial and commercial hindrance that would accomplish little. Interpreting the counter-petition as evidence that the medical community did not support quarantine, the General Council voted against enacting a quarantine program in early July.\(^\text{21}\) Frustrated by this further inaction of the city government to protect the city from disease and the betrayal of his fellow board-members in leading the movement against quarantine, Mitchell resigned from the Board of Health on July 10. In his resignation letter, printed in local newspapers the following day, Mitchell gave an ominous warning that “should we ever have yellow fever again, it will be our own fault in not taking the known necessary precautions against it.”\(^\text{22}\) Mitchell’s criticisms were specifically directed at those who had defeated quarantine and thus ruined what would be Memphis’s last chance to avert an epidemic. However, his words applied to the entire city, condemning Memphis for forfeiting its opportunities to resolve its public health problems and to thereby stave off the forthcoming devastation of another yellow fever epidemic.

With Memphis completely vulnerable to disease after the failed quarantine debate, the menace of yellow fever loomed even larger as multiple rumors of the disease in New Orleans circulated throughout Memphis. However, the New Orleans Board of Health reported no official cases to its Memphis counterpart; only on July 26 did health officials indirectly learn of yellow fever in New Orleans, prompting Dr. Erskine to finally establish quarantine around the city. As part of this quarantine, the Board of Health created three inspection stations: one on the Memphis and Charleston Railroad at Germantown, one on the Mississippi and Tennessee Railroad

\(^{21}\) Ibid.

at Whitehaven, and one on the Mississippi River at President’s Island, just south of the city.\textsuperscript{23}

With the news of yellow fever in New Orleans and the enacting of quarantine, public concern over yellow fever gradually escalated until panic erupted in early August. On August 14, the death of Mrs. Kate Bionda, the owner of the Italian snack-house visited by William Warren, was reported as the first official case of yellow fever in Memphis. City officials quickly took steps to eliminate the disease’s spread, closing off and disinfecting Bionda’s shop and adjacent buildings, as well as burning her body.\textsuperscript{24} Despite these actions, Bionda’s death and the report of twenty-two new cases and two deaths on August 15 incited many terrified citizens to flee the city. According to Keating’s account, “Men, women and children poured out of the city by every possible avenue of escape . . . The stream of passengers seemed to be endless.”\textsuperscript{25} Of Memphis’s 47,000 citizens, 25,000 left the city in a matter of days. Some refugees escaped to the nearby countryside, but “shotgun quarantines,” local militias organized to bar any possibly-infected Memphians from their towns, forced others to cities as far as Louisville and Cincinnati to escape the epidemic.

As September arrived in Memphis and the epidemic worsened, only 19,600 Memphians remained in their homes, a population that consisted primarily of poor blacks and Irish immigrants. With nearly all businesses and shops shut down by their fleeing owners, economic activity shuddered to a halt, and necessities such as food and medicine became increasingly scarce. In the words of the \textit{Public Ledger}, “All industries have ceased. The stores are closed, the factories are not running, [and] wharves and depots are deserted, for boats and trains

\begin{itemize}
\item \textsuperscript{23} Keating, \textit{History of the Yellow Fever}, 105.
\item \textsuperscript{24} Crosby, \textit{American Plague}, 54.
\item \textsuperscript{25} Keating, \textit{History of the Yellow Fever}, 107.
\end{itemize}
neither arrive nor depart.” Even those few businesses that remained open, such as the banks, telegraph office, post office, and the newspapers, could only do so on a limited basis; furthermore, these businesses suffered heavily as yellow fever decimated their ranks. With 3,000 reported cases by the end of August, “an appalling gloom hung over the city.” The detonation of gunpowder and the burning of tar barrels, both efforts by the Board of Health to clear the atmosphere of the yellow fever germ, clouded the city in haze, further adding to the pall. Sick and healthy alike remained cloistered in their homes, afraid to venture into the streets and expose themselves to the dreaded fever. Memphis’s streets remained deserted, with the movement of relief workers and the transport of the dead offering rare glimpses of human activity.

As citizens looked for care and relief in the struggle against yellow fever, the city’s public institutions offered little respite. Valuing their own survival above their duty to the city, many city councilmen and aldermen joined the flood of residents attempting to escape Memphis. Since the city’s General Council could not assemble a quorum from the few officials who remained, the local government ceased to function for the length of the epidemic. In addition to the dereliction of its politicians, Memphis suffered from the depletion of the city’s fire and police forces. While forty-eight policemen had patrolled Memphis prior to the epidemic, only thirty-one officers remained on duty following the emergence of yellow fever; of those who continued working, all but six contracted the fever, and ten men ultimately succumbed to

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28 Mildred Hicks, ed., *Yellow Fever and the Board of Health – Memphis, 1878* (Memphis: Memphis and Shelby County Health Department, 1964), 28, 31.
the disease.\textsuperscript{29} The local fire department suffered from similar desertion and affliction: at one point, just seven men remained healthy enough to fulfill their responsibilities.\textsuperscript{30}

For its part, the Board of Health lacked the authority and the monetary means to combat the epidemic, despite the commitment of its members to protecting public health. The Board met daily through the end of August, but yellow fever soon spread to four of its five members, including Health Officer John Erskine, Chief of Police Philip Athey, and Mayor John Flippin. Thereafter, the Board only convened a handful of meetings, comprised of acting members, before it ultimately declared an end to the epidemic on October 29. Even when it was able to meet regularly, however, the Board of Health could not attempt a serious resistance against the spread of yellow fever. The quarantine had likely begun too late, and the Board of Health further constrained the quarantine’s effectiveness when it acceded to the demands of local businessmen and allowed a freight train from New Orleans into the city.\textsuperscript{31} With the quarantine too limited to be effective and yellow fever already in the city, the Board ultimately lifted the quarantine on August 16. In addition to the failure of quarantine, the Board had no authority to enforce the public’s compliance with its sanitary ordinances, and its meager funding of $8,000 precluded any action beyond minor sanitary efforts.\textsuperscript{32} These efforts focused primarily on cleaning thoroughfares and disinfecting houses and streets in the infected district, but the Board also

\textsuperscript{29} Keating, \textit{History of the Yellow Fever}, 182.


\textsuperscript{32} Crosby, \textit{American Plague}, 44.
attempted more drastic measures, like using the smoke from exploding gunpowder and burning tar to clear the atmosphere of yellow fever germs. However, all of these efforts ultimately proved ineffectual, and the Board of Health provided little abatement to the continued spread of yellow fever through the city. Decimated by the epidemic’s devastation, both the city government and the Board of Health proved unable to mount an effective response, and citizens were left to fend for themselves.

The Citizens’ Relief Committee and the Howards: Memphians Respond

While the epidemic certainly exposed the inability of the city’s established public institutions to offer any relief from the scourge of yellow fever, it also encouraged private organizations, such as the Howard Association and the Citizens’ Relief Committee, to selflessly shoulder the burden of providing assistance. The Howard Association, an organization explicitly designed to provide care for the sick during yellow fever epidemics, had operated a Memphis chapter since 1867. Despite a membership comprised primarily of local businessmen, the Howards provided valuable medical assistance in the 1867 and 1873 epidemics. Thus, when yellow fever erupted in 1878 and the government again failed to generate a response, the Howards set to work without hesitation. In contrast, the Citizens’ Relief Committee (CRC) began with an impromptu meeting of prominent citizens on August 16 to provide organization and mutual assistance during the epidemic.33 With the city government in disarray, the CRC, made up of thirty-two members and led by cotton merchant Charles G. Fisher, occupied the role of public administration, providing relief to

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the sick and needy of Memphis and maintaining law and order.

At the time of the CRC’s creation, Memphis seemed to be at the brink of lawlessness. “With the police and fire departments reduced to a mere handful, it would not have been difficult for those so inclined to have pushed on to the consummation of the vilest purposes.”  

Attentive to the threat of looting and theft, the Committee supplanted the police force with thirteen new recruits and established a curfew of nine p.m., directing officers to arrest anyone not engaged in relief work. Furthermore, two military companies, the Bluff City Grays and the Chickasaw Guards, encamped in the city, with additional militias remaining on reserve. According to Keating, the installation of these companies and the shooting of a “ruffianly” man who harassed the commissary department succeeded in demonstrating the resolve of the CRC to provide law and order. By maintaining public order for the course of the epidemic, the CRC not only allowed the Howards and other relief workers to provide care without fear for their own security, but also, in Keating’s judgment, averted “the destruction, perhaps, of the city.”

Beyond the duty of preserving order, the Citizens’ Relief Committee offered an extensive program of aid to the needy citizens of Memphis. In conjunction with the Board of Health, the CRC established refugee camps, located beyond the reach of the yellow fever, to which citizens could escape from the plague-ridden city. Following an appeal to the Secretary of War, health officials received 1,000 tents and

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34 Ibid., 130.
36 Keating, History of the Yellow Fever, 131.
37 Ibid., 133.
40,000 rations, allowing for the formation of Camp Joe Williams on August 15 on the Missouri and Tennessee Railroad line at a point four-and-a-half miles south of the city. The CRC also oversaw smaller camps nearby and north of Memphis. These camps ran according to a flexible military discipline, with members from two Army companies, the Bluff City Grays and the McClellan Guards, occupying the southern camps. These companies enforced sanitary regulations and provided security against local opposition, which feared the spread of the disease from the camps to the surrounding communities. Despite these measures, the camps did not entirely escape the reach of yellow fever, since some refugees had already contracted the disease before their entrance. For example, Camp Joe Williams suffered 186 cases, of which 58 resulted in death. Nevertheless, the establishment and maintenance of these refugee camps by the CRC offered a haven to approximately 1,300 Memphians from the threat of yellow fever.

While its refugee camps assisted those citizens who escaped the pestilent city, the Committee also provided relief to those who could not by managing burials and disbursing supplies to the public. As the number of victims steadily rose, the stacks of coffins awaiting burial overwhelmed the county undertaker Jack Walsh and his crew of gravediggers.

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41 Walsh even attempted, unsuccessfully, to save time by substituting long trenches for individual plots in the cemetery. This decision brought much criticism and pain, since survivors discovered that they could not locate their dead after the epidemic.
Therefore, on September 6 the Board of Health enlisted the CRC to assume the duty of burying the dead.\textsuperscript{42} Since many victims were not found until they had reached an advanced stage of decomposition, the CRC also established a burial corps to locate unburied bodies throughout the city.\textsuperscript{43} In providing relief to the living, the CRC’s commissary occupied the void left by the closure of stores, providing food and supplies to the public. Over the course of the epidemic, the commissary supplied 745,735 units of rations, including 290,303 pounds of bacon, 32,858 pounds of coffee, and 1,046 barrels of potatoes.\textsuperscript{44} In allocating rations of food and clothing, the Committee utilized a system of vouchers distributed to the needy by ward committees, an orderly practice that presented each citizen with his fair share while avoiding favoritism or waste.\textsuperscript{45} Throughout all its activities, the CRC displayed a sense of munificence and compassion, relying on donations alone to provide relief and continuing its work despite the deaths of all but seven of its original thirty-two members, including President Fisher.\textsuperscript{46} The Citizens’ Relief Committee’s assumption of the role of government not only offered relief and security to citizens, it gave the entire city “courage by its constant, undeviating course” during the ordeals of the epidemic.\textsuperscript{47}

While the Citizens’ Relief Committee acted as a provisional government offering protection and public relief to Memphis during the epidemic, the Howard Association assumed responsibility for medical care. In the first weeks of the epidemic, a time when many victims suffered without

\textsuperscript{42} Hicks, ed., \textit{Yellow Fever and the Board of Health}, 37.
\textsuperscript{43} Keating, \textit{History of the Yellow Fever}, 111.
\textsuperscript{44} Ibid., 393.
\textsuperscript{45} Ibid., 132.
\textsuperscript{46} Ibid., 129.
\textsuperscript{47} Ibid., 390.
medical care due to the scarcity of available physicians, the Howards appointed pairs of “Visitors” to visit the houses in each ward to locate any cases of yellow fever, in effect conducting a census of the city’s infected population.\textsuperscript{48} With this information, the Howard Medical Corps, centered at the Peabody Hotel under the direction of former Board of Health president Dr. Mitchell, dispatched physicians and nurses to patients in their respective wards, where the physicians would provide treatment and dispense any necessary medications. Although the organization converted two public schoolhouses into infirmaries, doctors and nurses primarily toiled in the homes of victims, with physicians seeing anywhere from one hundred to one hundred fifty patients daily.\textsuperscript{49} During the epidemic, the Howards employed 111 physicians and 2,995 nurses, many of whom were volunteers recruited from across the country.\textsuperscript{50} As a charitable organization, the Howards provided all care and medicine free of charge, utilizing over $400,000 in donations to finance their efforts, which also included the establishment of warehouses to assist the CRC in providing supplies.\textsuperscript{51}

The Howards proved tireless in their work throughout the city, but they did not escape their share of difficulties in providing relief. Firstly, some volunteers from the North came to Memphis not to give aid, but to satisfy their own selfish vices. In his post-epidemic report to the Howard Association, Dr. Mitchell roundly denounced these volunteers, though few, “whose only purpose seemed to be plunder and the gratification of alcoholic thirst, and whose presence here was scarcely less destructive to human life than the plague itself.”\textsuperscript{52}

\textsuperscript{48} Ibid., 140.
\textsuperscript{49} Crosby, \textit{American Plague}, 70.
\textsuperscript{50} Ellis, \textit{Yellow Fever and Public Health}, 52.
\textsuperscript{51} Keating, \textit{History of the Yellow Fever}, 336.
\textsuperscript{52} Ibid., 367.
Nevertheless, the vast majority of nurses and physicians nobly served the sick and the needy, receiving considerable praise for their “heroism and fidelity to the cause of humanity” during the dark days of the epidemic.\textsuperscript{53} Besides occasional misconduct by volunteers, the Howards also struggled to provide effective treatment against yellow fever. Since there was no established cure, physicians and nurses could do little to improve the condition of the patient; instead, they were limited to alleviating the worst symptoms and working to make the patient comfortable as the disease ran its course, imparting a sense of futility on many doctors.\textsuperscript{54} Moreover, the physicians and nurses, especially those from the North who had never come into any contact with yellow fever, were vulnerable to the disease as they trekked from patient to patient. With many volunteers falling ill and thereby adding to the burden of care, Mitchell claimed that only twenty-five acclimated nurses could have offered more help than the hundreds of susceptible nurses that ventured to Memphis.\textsuperscript{55} Of the 111 Howard physicians, fifty-four contracted yellow fever and thirty-three died, while approximately one-third of the nurses succumbed to the fever.\textsuperscript{56} Nevertheless, the Howard Association continued their work for the entire epidemic, treating over 15,000 Memphians. Both the Citizens’ Relief Committee and the Howard Association, motivated by a sense of humanity and duty to Memphis, provided invaluable relief during the epidemic, unflinchingly assuming the responsibility of public assistance that the city’s civil institutions had surrendered.

In October, with the fever having infected most of its potential victims, the epidemic finally began to slow. As their

\begin{itemize}
\item \textsuperscript{53} Ibid., 376.
\item \textsuperscript{54} Baker, “Yellowjack,” 254.
\item \textsuperscript{55} Keating, \textit{History of the Yellow Fever}, 190.
\item \textsuperscript{56} Crosby, \textit{American Plague}, 83.
\end{itemize}
work in Memphis diminished, the CRC and the Howards offered assistance to nearby small towns, which had fewer resources to combat yellow fever. After securing trains on the three main railroad lines out of Memphis, teams of volunteers travelled down the line. Stopping at each town, the volunteers gave supplies to the town’s inhabitants, and the Howard physicians and nurses disembarked and offered treatment to the sick before getting back on the train for the next stop. Although these relief trains could not be organized until the end of the epidemic, they nevertheless mitigated the suffering of towns in west Tennessee. Finally, on the night of October 18, Memphis received its first frost, an event seen as a harbinger of the conclusion of a yellow fever epidemic, and on October 29 the Board of Health declared the epidemic to be over. As refugees trickled back to the city, the devastation of the epidemic became clear. Of the 19,600 citizens who had remained in Memphis during the epidemic, seventy percent of the population contracted yellow fever and 5,150 ultimately died.

A New Attitude and a New Authority for Public Health in Memphis

As refugees trickled back to Memphis and the city gradually resumed its activity, Memphians expressed little doubt that the city’s sanitary failures were to blame for the disastrous epidemic. The link between poor sanitation and


58 During the epidemic, yellow fever struck down just 8 percent of the city’s black population. In contrast, almost the entire white population contracted the fever, and the total white mortality rate was 70 percent. With these data, one can see how the proportion of black Memphians increased after the epidemic. From Keating, *A History of the Yellow Fever*, 140.
yellow fever seemed undeniable, though it would later be disproven by the discovery of the mosquito vector, and citizens demanded an end Memphis’s public health crisis. Only days after the first announced case of yellow fever, the Memphis Daily Appeal cried out for “relief from ignorance and incompetency in government, the cormorant greed of city and foreign creditors, and the visitations of a disease from which we ought to be, and would with proper sanitary regulations be exempt. We must make a change,” the editors insisted.59 Now aware of the devastation induced by inaction, city authorities could no longer evade the pressing issue of health and sanitation. The epidemic of 1878 had not only cost the city 5,150 lives and $15 million in economic losses, but also solidified Memphis’s reputation as a city tainted by disease.60 Memphis had “obtained a notoriety which was anything but agreeable to its citizens as a place of residence, or conducive to their interests as a place of business.”61 Although officials had repeatedly shelved health reforms to avoid restricting the city’s commercial activity and economic growth, it was clear that these policies had actually produced the opposite effect, damaging Memphis’s prospects for prosperity and modernization. The city government and business leaders recognized that the cost of epidemics, both immediate and long-term, far exceeded that of the sanitary reforms necessary to combat yellow fever. If Memphis remained on a path of inaction regarding public health, epidemics would continue to ravage the city until it

59 Memphis Daily Appeal, August 17, 1878, quoted in Ellis, Yellow Fever and Public Health, 57.
60 Ellis, Yellow Fever and Public Health, 57. These losses included the costs of caring for the sick and the dead, the expenses of the refugees who fled the city, and the interruption of trade and commerce during the epidemic.
ultimately collapsed, replaced by Nashville and Atlanta as the centers of the New South. Therefore, the government and the business community demanded greater investment in public health, especially sanitary reforms, in order to reestablish Memphis as an environment of growth and development.

Although the movement for comprehensive reform swelled among the public, Memphians retained little confidence that the existing government could be an effective force for change. After all, this was the same government that had buried Memphis under five million dollars of debt, partly due to corruption and malfeasance, and failed to properly resolve the city’s health crisis. The decaying Nicholson pavement offered a clear example of the city’s attitude before the epidemic. The government chose wooden paving as a cheap solution to make its roads more navigable, laying 10.75 miles of pavement by 1868. Yet the city made no effort to maintain its quality, allowing the pavement to become saturated by a mixture of impure water and seepage from the soil. As a result, the pavement was already rotten by 1872.62 These sanitary failures, along with Memphis’s massive debts, influenced the city to recommend the revocation of the city charter at the end of 1878, which would place Memphis under the direct supervision of the state. The state legislature approved this measure on February 8, 1879. The state created the new Taxing District of Shelby County, a state-appointed board led by prominent businessmen, whose position as non-elected officials reflected the desire for a government that would focus on pragmatic solutions over political gain.63

Under the act creating the Taxing District, the Tennessee legislature organized a permanent Board of Health in Memphis, which served as a new, empowered authority in  

stimulating public health reforms. As a permanent structure, the new Board of Health contrasted greatly with earlier boards, which were organized temporarily to combat epidemics, but then disbanded after serving their limited purpose. Furthermore, the new Board of Health held expanded powers over public health. Whereas previously the board had existed as an advisory body with limited means to effect substantial sanitary improvements, the new board possessed control over food and medicines, building construction, privies, cisterns and wells, sewers and drains, and the water supply. According to Keating, the new Board maintained expansive authority over the city’s health, regulating “every thing, in fact, that can nearly or remotely affect the public health.”64 Along with this expanded jurisdiction, the new board had increased powers to enforce health ordinances. Most important among these was the board’s ability to conduct inspections and issue fines for any violations of health ordinances or “nuisances” to the public health. For the citizens of Memphis, the new Board of Health finally offered an authority with both the powers and motivations to immediately and wholly improve the health of the city.

With a clear mission for reform, the new Board of Health set to work inspecting and cleaning up the city. In terms of concrete improvements, the board organized a system of garbage carts to collect refuse and enacted new health ordinances to prohibit the use of unsanitary privy vaults, cisterns and wells. Moreover, the board enlisted its first sanitary police to conduct regular inspections, which forced individuals to uphold health standards and thus produced compulsory sanitary reforms.65 In its efforts, the local board benefitted from the assistance of the National Board of

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Health (NBH), a new organization created in 1879 as a direct response to the yellow fever epidemic of 1878. Since the Taxing District lacked the finances to undertake widespread sanitary changes, the local board petitioned the NBH, which was designed to assist local and state boards in producing effective quarantine and sanitary measures, and received both counsel and financial assistance.66

Local merchants and cotton traders, who believed that public health reform would bolster the economy, sought to assist health officials by creating the Auxiliary Sanitary Association (ASA) in May 1879. Organized at a meeting of the Cotton Exchange and the Chamber of Commerce, the ASA proposed to “assist local authorities in the improvement of the sanitary condition of the city,” including educating the public on the importance of sanitation and hygiene.67 Besides purchasing disinfectants, garbage carts, and mules for the Board of Health, the group resorted to public shaming, publishing a list of landowners whose properties remained unsanitary.68 G.B. Thornton, the new president of the Board of Health, applauded its membership, claiming that “the Association exhibited commendable zeal and rendered material assistance at a time when the city government was most embarrassed for means.”69 As a result of coordinated efforts among empowered health officials and a concerned community, by the summer of 1879 Memphis had already

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68 Humphreys, *Yellow Fever and the South*, 103.
69 Memphis Board of Health, *First Annual Report of the Board of Health of the Taxing District of Shelby County, for the Year 1879* (Memphis: The Board, 1880), 33, quoted in Humphreys, *Yellow Fever and the South*, 103.
begun to rectify its sanitary plight, but the city had only taken its first steps on its long path of public health reform.

Just as Memphis had begun to address its sanitary failings, the city was beset by another visitation from yellow fever in the summer of 1879. Following the pattern of the previous year, the announcement of the city’s first official death on July 9 precipitated the flight of many Memphians. However, local authorities, battle-tested by the previous epidemic and its aftermath, offered a more organized resistance. On July 11, the Tennessee Board of Health enacted quarantine for the city and appointed local physicians to serve as inspectors on the railway lines. Moreover, national, state, and local health officials met in August and assigned separate duties for the epidemic: the State Board of Health controlled quarantine and disinfection, local officials led garbage collection and street cleaning, and the NBH provided advisory support and financial funding. Through these coordinated steps, as well as the establishment of seven camps outside the city, health officials displayed both order and urgency in taking appropriate measures to combat the epidemic.

Aware of the failure of quarantine in 1878, the superintendent of quarantine John Johnson established strict protocols to isolate Memphis, organizing guards to patrol the city. Furthermore, Johnson prohibited the movement of cotton, a potential fomite, into the city, a move that outraged the local cotton community. Although they had supported Memphis’s recent public health measures, cotton traders now appealed to the State Board of Health and to the courts to relax these quarantine regulations. Their plea fell on deaf

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70 Ellis, *Yellow Fever and Public Health*, 108. This meeting was subsequently known as the McKenzie Conference, named for the town in northwestern Tennessee where the meeting took place.

71 Ibid.
ears. In an about-face from previous years, health officials at the local and state level refused to place the public health at risk for the commercial gain of the cotton trade. Expressing a view held by most citizens, Board of Health President G.B. Thornton asserted Memphis could “better afford to give up the commerce of the whole country south of it for three or four months of the year . . . than be again subjected to a visitation of yellow fever.” Though the 1879 epidemic would claim 485 lives from 1,532 cases of yellow fever, it demonstrated the new vigilance and diligence concerning the primacy of public health in Memphis. Furthermore, health officials portrayed the 1879 epidemic as a continuation of the devastation of 1878, confirming their fears that poor public health would beget frequent epidemics. Whereas authorities had believed previous yellow fever epidemics to have been imported into the city, Thornton suggested that the 1879 epidemic had originated locally from Memphis’s filthy environment, with the disease surviving the winter to reemerge in July. Therefore, the 1879 epidemic of yellow fever reiterated the direct threat that yellow fever posed to the city, reinforcing the urgent and continued need for improvements in public health to prevent future outbreaks. Although Memphis could praise the steps it had taken so far to eradicate filth, the 1879 epidemic confirmed that the city still needed to undertake additional and more comprehensive measures to continue its fight against disease.

The stricter quarantine imposed by the Board of Health in 1879 symbolized Memphis’s new attitude towards yellow fever and public health in general, an approach which placed health concerns above economic gain. This new system of

72 Ibid., 110.
73 Thornton, “Memphis Sanitation and Quarantine,” 197.
74 Thornton, “The Yellow Fever Epidemic in Memphis,” 120.
75 Ibid., 113.
quarantine continued in subsequent years, serving as the city’s first avenue of reform in public health. Following the passage of a national quarantine law in 1878, the Tennessee legislature authorized the State Board of Health to supersede the Surgeon General in controlling quarantine practices in the state. However, the statute proclaimed the goal of quarantine to be the prevention of the spread of disease “with the least inconvenience to commercial travel,” thereby forcing quarantine officials to choose between the imperatives of trade and public health.76 Despite the opposition of cotton planters and traders to the quarantine procedures of 1879, Memphis as a whole supported quarantine measures, welcoming the regulations as effective protection in the best interests of the city. Beginning in 1880, the Taxing District’s Board of Health called upon the NBH to operate a quarantine of observation and inspection at the station on President’s Island, cooperating with other inspectors across the South.77 Following its success in 1880, Memphis enlisted the NBH to repeat this work each summer until the dissolution of the NBH in 1883. Although concerns about yellow fever would persist for many years due to the psychological impact of the 1878 and 1879 epidemics, the assistance of the National Board of Health in providing quarantine certainly served to assuage the worst fears of yellow fever among Memphians.

In addition to the support in operating quarantine, Memphis collaborated with the National Board of Health to improve local sanitation, particularly through the NBH’s sanitary survey of Memphis. The survey, which began on November 24, 1879, consisted of 7 inspectors and 26 contracted sub-inspectors who conducted a comprehensive,

76 Keating, A History of the Yellow Fever, 280.
77 Memphis Board of Health, Second Annual Report of the Board of Health of the Taxing District of Shelby County, for the Year 1880 (Memphis: The Board, 1881), 9-10.
house-to-house inspection of the city. With the goal of isolating specific sanitary problems and offering possible solutions, the survey gave detailed evidence of Memphis’s poor health. While the Bayous Gayoso and Quimby offered potential sources of drainage for tainted local water supplies, deposits of mud and sediment from the rising Mississippi had slowed the current of the bayous. Therefore, large deposits of organic matter accumulated in the bayous and subsequently decomposed, emitting an offensive stench that pervaded every block of the city. In addition, the bayou had become contaminated from the emptying of privies and the surface runoff from contaminated soil. With no drainage system in place, the soil soaked basements and made unpaved streets impassable. The survey criticized the newly-introduced garbage force as inadequate: most areas of the city did not receive service twice per week as promised, but rather once per week or not at all. Therefore, citizens continued to dispose of their garbage into alleys, bayous, disused cisterns and privies, or wherever else that was convenient. Of the city’s 7,202 buildings, only 2,204 had proper sub-floor ventilation, and inspectors condemned 494 buildings for their sanitary conditions, requiring their destruction or wholesale renovations. The horrid conditions continued in the city’s basements: 786 of the 1,515 cellars and basements were “badly ventilated, damp, or wet, many with water standing from 2 to 18 inches deep on the floors, and with walls soaked by sipage [sic] from the surrounding polluted soil.”78

Yet for all of these sanitary problems, the condition of the city’s existing systems for sewage and water received the harshest rebuke in the survey. Since only four-and-a-half miles of private sewers existed in the city, most Memphians used one of 6,000 privies and sub-surface vaults, of which

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“considerably less than one-third were sufficiently remote from living-rooms,” including some privies located in the very cellars of houses. In total, the survey found 3,607 vaults in poor condition, which, with the added filth from disused privies, offered insight into the level of soil pollution. Furthermore, 3,408 of the 4,744 wells and cisterns in Memphis were located within a contaminating distance of 50 feet of a privy-vault, the underground storage receptacle for the privies’ waste. With inspectors estimating over 1400 cisterns to be leaking, and thus highly likely to be polluted with sewage, these findings offered clear evidence that the system of wells and cisterns could not continue as the city’s source of water. However, analysis of the supply from the Wolf River presented little improvement: the results of Dr. Charles Smart characterized the river as “an uninviting stream, turbid with particles of red clay, which . . . rendered filtration difficult.” Since the water could not be effectively purified, the analysis showed the water to contain vegetable matter and to be “unwholesome to a high degree.”

Despite the detailed censure of Memphis’s sanitary conditions, the sanitary survey did offer some hope for improvement, laying down recommendations to rectify the city’s sanitary woes. Foremost, Memphis required a new system for sewage and drainage. The survey recommended that all privies be emptied and filled with earth, and “hereafter no system of dealing with excrement shall be permitted which involves pollution of soil, water, or air.” In place of privies, the survey proposed a new system of underground sewers to empty into the Mississippi River, where the waste could decompose away from the city. In conjunction with these sewers, inspectors called for a system of subsoil drainage, which would reduce the saturation of the soil and turn the Bayou into a functioning drainage stream again. The report

79 Ibid., 251–2, 260.
also recognized the need for an expansion of the garbage force and the replacement of Nicholson pavement with more durable paving. The survey also called for the destruction or wholesale renovation of unsanitary houses and the ventilation of all houses, including their basements and cellars, so as to remove any infected matter. To enforce these standards in the future, Memphis would require a new system of building regulations, mandating that new construction be approved by health authorities and subject to future inspections. Unfortunately, the survey could not offer Memphis a definitive solution to its water question, since neither the Wolf River nor the Mississippi River seemed to present viable sources of abundant, pure water. However, the survey did recommend that Memphis discontinue the use of polluted cisterns and wells and reorganize the waterworks as a public entity with the goal of introducing a better supply from an as-yet-unknown source. Following these steps, the NBH predicted that Memphis could reduce its mortality rate from 34 deaths per 1,000 citizens in non-epidemic years to a more respectable 20 deaths per 1,000 in five years. The National Board of Health’s sanitary survey of Memphis gave detailed information on the persisting sanitary problems facing the city, thus providing concrete targets for improvements and empowering the local Board of Health to take increased steps for reform.  

Interpreting the NBH’s sanitary survey as a mandate for more widespread action, the Board of Health of the Taxing District redoubled its efforts in construction, paving, and garbage collection. From its initial two officers, the Board of Health expanded its sanitary police corps, detailing regular officers with additional authority to conduct inspections, report sanitary nuisances, and issue fines for public health

80 Ibid., 239, 252.
purposes at the behest of the Board. The expanded sanitary police corps allowed the Board of Health to direct thousands of inspections annually, not only of buildings but also of privies, wells, and cisterns. Following these inspections, the Board ordered privies and cisterns to be cleaned, emptied, or disused entirely. Furthermore, in its first three years, the Board of Health condemned and destroyed 244 houses in the city, with many others being repaired to satisfactory condition by their owners. In addition to the added enforcement provided by the sanitary officers and these physical improvements, the Board of Health augmented its authority by enlarging its area of influence. It enacted new plumbing regulations, appointed an inspector for the city’s milk and meat, began registration of births, and administered mandatory vaccinations against smallpox. By expanding the breadth of health ordinances and wielding the powers of sanitary inspections and fines, the Board of Health increased its powers over the public health of Memphis and compelled sanitary improvements among the citizenry.

**Working Sewers and Clean Water: Finding Sanitary Salvation**

The Board of Health simultaneously undertook comprehensive physical improvements across the city, including the replacement of the festering Nicholson pavement and the development of the city’s garbage service. As better drainage dried the soil, the city tore up the wooden

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blocks and repaved the streets with more durable stone and gravel.\textsuperscript{84} By 1886, Memphis had removed 9 miles of Nicholson pavement and laid 22.5 miles of stone paving. With the adoption of granite pavement in the late 1880s for its increased durability, the city paved some 50 miles of streets by the early 1890s.\textsuperscript{85} Of course, these paving upgrades occurred unevenly, arriving first in the commercial and affluent residential areas of the city, even though Memphis’s poorer districts suffered most dearly from the city’s sanitary failures. In garbage collection, the Board of Health continued to expand its force as per NBH recommendations, for example purchasing two new garbage carts and five mules in 1887.\textsuperscript{86} The garbage force remained inefficient and undersized, and again only affluent neighborhoods received regular service. Nevertheless, through the new process of dumping garbage into the Mississippi River below the city, in conjunction with the reduced workload of the force due to sewer expansion, Memphis successfully limited the build-up of waste in the Bayou Gayoso and across the city.

Despite the benefits of these health improvements, the Board of Health performed no measure that carried as much significance as the development of a new sewer system. For sanitarians, the antiquated privy system was a major source of filth in Memphis, polluting both ground and air, and a new sewer system offered a decisive improvement in health conditions. Even before the sanitary survey in 1879, Memphis had contracted George E. Waring, Jr., a civil engineer who had led the drainage project in the construction of Central

\textsuperscript{84} Ellis, \textit{Yellow Fever and Public Health}, 117.


\textsuperscript{86} Memphis Board of Health, \textit{Ninth Annual Report of the Board of Health of the Taxing District of Shelby County, for the Year 1887} (Memphis: The Board, 1888), 4.
Park, to perform an examination of the city with the goal of organizing a plan for a sewer system. On November 26, 1879, the NBH released its preliminary report on Memphis's sanitary conditions and recommended the adoption of the Waring system, which envisioned separate systems for sewage waste and drainage. Although the proposed design had never been implemented on such a large scale, the economy of the Waring system persuaded the impoverished Taxing District, which recognized the immediate need for improved drainage and sewers, to petition the state legislature for funding. Similarly convinced by the NBH's recommendations, a special session of the Tennessee legislature authorized the Taxing District to collect a two percent tax to finance the new sewer project, which then began on January 21, 1880.  

In Waring's plans, each street contained 6-inch pipes and a 112-gallon flush tank, designed to clear the line daily to prevent blockages from the accumulation of waste. As workers laid these pipes, the Board of Health ordered the replacement of privies with new water closets, with 4-inch drains from each house to the lateral street pipe. Although critics claimed these pipes were too small, Waring defended their size, claiming that smaller pipes provided for sufficient ventilation and proper flushing of the system. These lateral lines then drained into a pair of 15-inch main sewers, one on either side of the Bayou Gayoso, and ultimately emptied into the Wolf River. In this manner, the sewers carried waste beyond the limits of the city before the beginning of decomposition and the release of putrefying toxins. For drainage, Waring's men laid agricultural drain tiles, from

88 Ellis, Yellow Fever and Public Health, 114.
90 Ibid., 38.
which surface drainage entered underground pipes that drained into the Bayou Gayoso.

In just fifteen weeks, workers laid 18 miles of new sewers in the city, including all of the main lines, at a cost of $137,000.\textsuperscript{91} As with most of the sanitary improvements, the new sewers experienced their share of obstacles and criticism. Despite the repeated protests of Board President Thornton that more sewers would reduce the burden on the garbage force, Memphis did not extend sewer access to the poorer neighborhoods of the Ninth and Tenth Wards until 1888.\textsuperscript{92} In this manner, sewer construction adhered to the common pattern of sanitary reform. Public health improvements occurred rapidly in Memphis's commercial district and wealthy neighborhoods, satisfying the elites' demands for immediate progress; in contrast, the impoverished areas of the city, which displayed the most deplorable sanitary conditions and thus suffered most heavily from disease, only gradually experienced the city's advances in public health. Thornton also criticized the city for constructing overflow pipes that emptied into the Bayou Gayoso; although the first overflow, erected in 1880, began as a temporary measure to reduce the strain on the sewer system, by 1884 seven outlets emptied into the Bayou. According to Thornton, these outlets violated the ordinances of the Board of Health and, more significantly, negated overall sanitation efforts by restoring the Bayou's

\textsuperscript{91} George E. Waring, Jr., “The Memphis System of Sewerage at Memphis and Elsewhere,” \textit{American Public Health Association Reports} 18 (1892): 154.

\textsuperscript{92} Memphis Board of Health, \textit{Fifth Annual Report of the Board of Health of the Taxing District of Shelby County, for the Year 1883} (Memphis: The Board, 1884), 8; Memphis Board of Health, \textit{Seventh Annual Report of the Board of Health of the Taxing District of Shelby County, for the Year 1885}, (Memphis: The Board, 1886), 5; Memphis Board of Health, \textit{Tenth Annual Report of the Board of Health of the Taxing District of Shelby County, for the Year 1888} (Memphis: The Board, 1889), 8.
previously polluted condition. Ultimately, the city constructed an intercepting relief sewer in 1885-1886, allowing the closure of the sewer outlets into the Bayou. Finally, the introduction of an entirely new system for sewage required Memphians to change their practices, following repeated pipe blockages. For Waring, it was clear that these stoppages arose from the improper disposal of foreign substances such as sticks or garbage into the pipes. Furthermore, Memphis’s muddy water supply clogged the flush-tanks and thus reduced the tanks’ ability to clear the system, a problem that could be resolved by regular maintenance.

Despite the initial difficulties of constructing a new sewage system, Memphis’s sewers performed admirably and received widespread praise for their overall effectiveness. By December 1886, Memphis had 43.49 miles of sewers, 198 flush-tanks, and 35.09 miles of subsoil drain. In total, this work cost $316,000, an economical sum covered by the city’s special sewer tax. Most significantly, the sewage and drainage systems drastically improved Memphis’s sanitary condition. As decaying privies were filled in and replaced by 7,535 new water closets connected to the sewers, Memphis eliminated the “wholesale and indiscriminate pollution of the soil” and “converted the old, smelly Bayou Gayoso from a lengthy cesspool” back into an effective channel for


Furthermore, consistent flushing of the system and proper ventilation prevented deposits of sewage or noxious “sewer-gas.” For health authorities, these steps ensured that infectious miasma, disease-causing vapors thought to arise during decomposition, posed no health threat to the people of Memphis. In sum, the sewers were a complete success, and George Waring noted that the new system was “popularly credited with the conversion of Memphis from a pest-hole to a habitable town.” Indeed, Memphis’s new systems of sewerage and drainage, which the city continued to expand, significantly improved conditions in the city and, for historian John Ellis, ultimately represented “Memphis’s most significant sanitary achievement of the 1880s.”

As Memphis resolved its other sanitary issues, especially its lack of an effective sewer system, the wretched conditions of the city’s water supply only grew increasingly unbearable. Although Memphis heeded the recommendations of the NBH survey and reorganized the Memphis Water Company as a public waterworks in 1880, the supply from the Wolf River remained unwholesome, “thick with mud, mineral, and vegetable matter.” As the Board of Health continued to condemn wells and cisterns, which were defective and polluted by the soil, as unfit for use, the Wolf River supply became the only option for many Memphians. Even the construction of the new sewer system provided no relief. Since the city drew its water only half of a mile upstream from where the sewers emptied into the river, backflow constantly

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contaminated the water supply.\textsuperscript{101} Despite the pleas of the public and the disapprobation of the medical community, including the Board of Health, the government did little to resolve the problem. The costs of filtering the Wolf River water remained prohibitively high in the city’s eyes, and a supply from the Mississippi River seemed to offer no sanitary improvement. In 1886, the Taxing District appointed a committee to investigate the city’s water problems. In its report, the committee recommended drawing Memphis’s water from the Wolf River at Raleigh, Tennessee, a point farther upstream from the current waterworks; however, the city took no action.\textsuperscript{102} Therefore, Memphis’s abysmal water supply continued to hamper the city’s public health throughout the early 1880s.

However, the fortuitous discovery of underground reservoirs in 1887 and the subsequent implementation of artesian wells offered not only a viable source of water, but one of exceptional quality. As discontent with the Wolf River continued to grow, public interest grew in the potential drilling of artesian wells that would tap into aquifers deep below the earth. In 1883, the Bohlen-Huse Machine and Lake Ice Company began experimental drilling for ice production, but had poor results. Then, in May 1887, the company’s well on Court Street “suddenly gushed forth clear, cool, good-tasting water” at a depth of 354 feet.\textsuperscript{103} R.C. Graves, manager of Bohlen-Huse, sent samples of the surprising discovery to Dr. Charles Smart, the same chemist who had analyzed Memphis’s water for the NBH sanitary survey in 1879. Smart found both samples to be clear, odorless, and pleasant-tasting; moreover, Smart detailed his

\textsuperscript{101} Memphis Board of Health. \textit{Third Annual Report}, 14.

\textsuperscript{102} Ellis, \textit{Yellow Fever and Public Health}, 116.

\textsuperscript{103} Ibid., 117; “Water,” \textit{Mississippi Valley Medical Monthly} 7 (Aug. 1887), 372.
surprise at “the unusual purity of the water,” which contained no organic debris and little sediment.\footnote{“Water,” 372.} The sandy aquifer that held the water sat beneath a thick layer of firm clay, preventing any surface pollution from contaminating the water. Therefore, Smart wholeheartedly endorsed the artesian well water as a wholesome supply for Memphis, stating that “a plentiful supply of water like this would be a god-send to any city.”\footnote{Ibid.} After a study confirmed that the underground source held more than enough water to sustain Memphis’s needs, in July the city contracted the newly formed Artesian Water Company to provide the municipal water supply. Graves quickly ordered 32 wells drilled and connected to surface pumps that distributed water throughout the city, supplying between 8 and 9 million gallons of water daily by the end of 1888.\footnote{“Memphis’s New Water Supply,” \textit{Memphis Medical Monthly} 8 (Nov. 1888): 528-9.} Furthermore, the water remained of the highest quality and showed no signs of exhausting its underground supply. By providing a plentiful supply of what the \textit{Memphis Avalanche} named “the cleanest, purest, and best water of any city in the South,” R.C. Graves and the Artesian Well Company completed the city’s transformation from a hotbed of disease into a sanitary leader.\footnote{\textit{Memphis Avalanche}, September 16, 1888, quoted in Ellis, \textit{Yellow Fever and Public Health}, 117.}

\textbf{Conclusion}

In demonstrating the severe consequences of Memphis’s failure to address its sanitary weaknesses, the 1878 yellow fever epidemic prompted Memphis to undertake a radical program of public health reforms. By creating a powerful
Board of Health and pursuing numerous sanitation improvements, most notably a new system of sewers and a clean water supply, Memphis’s response to the epidemic shaped the city into a model for innovation and success in public health. In stark contrast to its previous apathy to reform, Memphis continued to expand upon its initial health improvements through the end of the nineteenth century. In 1898, the Artesian Water Company had 40 wells and 3 surface pumps in Memphis that provided a supply of 30 million gallons daily, an amount three times the city’s demand.\(^{108}\) Similarly, by 1900 Memphis had 152 miles of working sewer, a considerable departure from 4 miles just over twenty years earlier.\(^{109}\) As the city had hoped, its sanitary programs slashed Memphis’s mortality rate from 35 deaths annually per 1,000 citizens in pre-epidemic years to 23.8 deaths per 1,000 in 1886.\(^{110}\) The mortality rate dropped further to 18.9 deaths per 1,000 in 1893, likely due to the improved water supply.\(^{111}\) Furthermore, these improvements succeeded in their original goal of reducing Memphis’s vulnerability to yellow fever, although health authorities were incorrect in supposing a direct connection between filth and yellow fever. The new sewers, which eliminated the saturation and pollution of the soil and turned the Bayou into a flowing stream, and the improved water supply, which resulted in the disuse of wells and cisterns, eliminated many sources of standing water in the city. Therefore, Memphis eradicated many of the breeding grounds for the *Aedes aegypti* mosquito; subsequently, the city only experienced one more bout of yellow fever, a mild spell in 1897. Finally, Memphis’s sanitary improvements offered leading innovations in public health

\(^{108}\) Capers, *Biography of a River Town*, 211.

\(^{109}\) Ibid., 210.

\(^{110}\) Thornton, “Six Years’ Sanitary Work,” 449.

\(^{111}\) Ellis, *Yellow Fever and Public Health*, 164.
reform, again through its sewage system and artesian wells. Memphis had been the first city to implement Waring’s plan for separate sewage and drainage systems, and their success fueled the introduction of the “Memphis system” of sewerage in cities across the world. Similarly, the artesian wells offered one of the purest water supplies in the country, a supply that continues to serve Memphis today with equal success. Indeed, Memphis’s post-epidemic public health reforms not only succeeded in making the city “an impossible field for the invasion of yellow fever in an epidemic form,” but also transformed Memphis into a model of sanitary triumph.\footnote{Waring, “Sewerage and Drainage,” 40.}
The Second World War brought a painful paradox to America: racism was widespread in this country, and yet the United States was nominally fighting in the name of equality and freedom. This contradiction was especially apparent with regards to East Asian peoples. White Americans had long discriminated against the Chinese, Koreans, and other East Asians, banning them from gaining citizenship or even entering the United States. Events abroad changed the situation, however, when China became America’s ally in the war against Japan. Discrimination against the Chinese was no longer prudent; American racism risked alienating the Chinese ally that was so critical in facing the seemingly invincible Japanese forces. As a result, the racist laws against the Chinese were repealed. Changing White Americans’ attitudes to correspond with this new reality would require a wave of official propaganda. Instead of the image of the inferior “yellow” race, now reserved for the Japanese, the Chinese and other East Asians became gallant heroes who shared in Americans’ sacrifices for the war effort. This subtle change in imagery was not a result of a widespread change in American society, but a top-down government act brought
about by the necessities of war. No massive protests preceded the repeal of the racist laws, as was the case with the repeal of laws discriminating against African Americans in the 1960’s, but nonetheless the laws against the Chinese were now defunct. Moreover, this was the first time that major discriminatory legislation in the United States had been undone. The horrors of war brought with them a fundamental change, one that would not have come as quickly without the pressures of armed conflict.

Change had to be gradual, for the American public held strong prejudices against Asian immigrants. Of the various East Asian ethnicities, the Chinese had the largest presence in the United States. Chinese immigrants had first entered the country in large numbers beginning in the mid-nineteenth century, many of them settling in California to work as manual laborers. Native White workers saw the Chinese as unwanted competition for scarce jobs, and lobbied for the restriction of Chinese immigration to the US. In 1882, they succeeded in their efforts when Congress passed the Chinese Exclusion Act, blocking the entrance of all Chinese laborers into the United States. The law further declared “that hereafter no State court or court of the United States shall admit Chinese to citizenship.”

Similar laws later barred citizenship to the Japanese, Koreans, and other Asians. Those Chinese already in the United States were allowed to remain, and their descendants were officially native-born citizens. Even then, they faced rampant racism, as Whites limited the Chinese to working either in laundry shops or Chinese restaurants. Even college-educated Chinese Americans could not find well-paying white collar jobs.

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other Asians) were obviously very different in physical appearance from other ethnicities in America, the Chinese—even when born in the States—were forever foreigners, to be feared and hated.

War forced White Americans to rethink their opinions of the Chinese, for even as foreigners, they faced a new common enemy: Japan. Seeking to escape the ravages of Western imperialism and become a great power itself, Japan had embarked on a campaign of conquest on the Asian continent. Gradually, Japan nibbled away at the decaying Chinese state, occupying territories in northeastern China. In 1937, with China weak from the ongoing civil war between the Communists and the Nationalists, Japanese imperialists seized the opportunity and launched a full-scale invasion of China. Japanese forces quickly defeated the Chinese armies and captured the Nationalists’ capital at Nanking (modern-day Nanjing). Once they occupied the city, Japanese soldiers engaged in an orgy of rape, murder, and destruction that claimed the lives of 300,000 Chinese civilians, known afterward as the infamous “Rape of Nanking.” As dramatic as these events were, they did not change Americans’ attitudes overnight. Most Americans were horrified by Japan’s atrocities, and American missionaries in China lobbied hard for American intervention. These appeals were, however, drowned out by isolationists fearful of embroiling the United States in a foreign conflict. Initially, the American government provided $25 million in loans to the Chinese Nationalists, but no military support.3

As much as America had tried to avoid conflict, the winds of war in East Asia eventually reached across the Pacific. The Japanese government did not trust America to remain out of the conflict, and its alliance with Nazi Germany further

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antagonized relations with the United States. Japanese militarists decided that only a preemptive strike against America’s powerful military could ensure a Japanese empire in the Pacific. On December 7, 1941, Japan launched a surprise attack on the American fleet at Pearl Harbor in Hawaii. The treacherous nature of the attack enraged Americans, who now entered the Second World War with a thirst for revenge. Long-standing racial animosity towards East Asians burst forth with renewed fury in propaganda against the Japanese. World War II became a battle to defend Western, Christian civilization against the “Yellow Peril” from the east.

Racism was throughout the war a common basis for Allied propaganda against the Japanese, usually incorporating stereotypes that could apply to all persons of East Asian descent. The Japanese were derided as “little yellowbellies” and as “yellow monkeys,” and propaganda also referred to them with slurs applicable to all Asians such as “slant-eye” or “gook.” Well-known Japanese leaders, such as the militaristic Prime Minister Hideki Tojo, were easy prey for American propagandists. A figure resembling Tojo appeared in an ad from 1944, brandishing a sword of conquest (see Figure 1). His efforts are clearly in vain, for the ad depicts an American bayonet pointed at the Japanese despot with the ominous words, “Tokyo Next!” What is more, the images of Tojo’s nose, ears, and teeth evoke a repulsive rodent. Many advertisements gave the Japanese rat-like characteristics to further dehumanize the “inferior” enemy. One such advertisement called for “rat poison,” declaring, “There’s only

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one way to exterminate the slant-eyes—with gunpowder!” The ad includes the image of a Japanese soldier, identifiable as such from his uniform, bearing a sinister grin and exaggerated Asian features (see Figure 2). The publisher’s tone is clear: the Japanese, as an East Asian people who dare to stand against America, are vermin worthy only of death.

Such blatant racism proved problematic, as the stereotypes of East Asians alienated America’s new Chinese allies. Clearly, propaganda had to draw a dividing line between the “good” East Asians and the “evil” Japanese. The motive was not to promote tolerance per se, but rather to avoid antagonizing a useful demographic both at home and abroad. Racism was a part of American society in the 1940s, but wartime necessity meant racial tensions had to be minimized for the sake of

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national unity behind the war effort. The way the government propagandists hoped to do that was through increasing public awareness of just how important the “inferior” peoples were to the American cause. Chinese, Koreans, and other groups were persecuted in the United States, but now they were needed along with other non-White groups to assist in the war against Japan. World War II was very much a total war, in which governments had to mobilize all available resources and all available people in order to secure victory. With national survival at stake, old prejudices had to be minimized, especially if those hatreds were directed at newfound allies. America could not afford to hate the Koreans or Chinese anymore; it did nothing to defeat the common enemy.

American leaders were quick to understand the need to mitigate anti-Asian racism in the United States, for if China left the Allied camp, it would be disastrous for the Allied cause. China had millions of soldiers in the fight against Japan, and the Chinese front tied down two million Japanese troops who otherwise could have been deployed in the Pacific against the United States.\footnote{Dower, \textit{War Without Mercy}, 172.} Worse, American racism played into the hands of Japanese propagandists, who were trying to win over the Chinese with promises of a united Asian front against a common, White European enemy. Japan’s propaganda machine promoted the idea of a “Greater East Asia Co-Prosperity Sphere,”\footnote{David C. Earhart, \textit{Certain Victory: Images of World War II in the Japanese Media} (Armonk, New York: M. E. Sharpe, 2008), 261.} a pan-Asian alliance designed to drive Western imperialism out of the region. According to historian David Earhart, this constituted “the greatest military and cultural challenge to Western civilization since the Mongol hordes decimated eastern Europe.”\footnote{Ibid.} Earhart’s choice
of words could easily have come from a worried US government official serving during the Second World War.

Even if China remained in the Allied camp, many White American politicians feared a Chinese backlash against White racism following the defeat of Japan. The idea that China would replace Japan as a new, more dangerous “Yellow Peril” struck fear into US government functionaries. Such a development would, in the words of Robert Ward, an American diplomat in China, “commit the world to a racial war that would destroy the white man and decimate the Asiatic, with no possible future gain.”10 The “true peril,” as he called it, lay with “the Japanese identification of imperial aims with the appeal to a race revolt.”11 Needless to say, the Japanese were lying to the Chinese and other Asians; Japan merely wanted to replace the Western powers as the imperial master of East Asia. Japanese brutality against the Chinese, such as at Nanjing, proved Japan’s real intentions were not so benign. American policymakers, on the other hand, could not afford to allow their enemy the racial trump card any longer. America’s own racist laws only confirmed the enemy propaganda, just when the Allied cause was at its most desperate. The imperative to keep China with the Allied cause was all the more reason to end Chinese exclusion.

When the laws discriminating against the Chinese were finally repealed, the American government justified the change in moral terms. Behind the scenes, practical considerations about preserving the wartime alliance with China had motivated many American government functionaries, such as Ward mentioned above. Publicly, American officials utilized the changes for the Chinese as a tool in the propaganda war against Japan. Repealing the Chinese exclusion laws demonstrated America’s moral

10 Dower, War Without Mercy, 172.
11 Ibid.
"Six Mitsubishi going over... for a one-way ride!"

Five minutes away by P-40
Lu Yen’s attack alarm
sends a Yankee fighter squadron
scrambling to rendezvous near ceiling.
There to wait—and land
those bomb-heavy Mitsubishi
one-way tickets
to the arms of Shodzuka Bebe
—Japanese “Old Lady of Hodes.”

Our lads won’t be caught napping
on the ground... or in the air.
Teamwork—talk and tactics
by radio takes good care of that.

Those rugged, compact field radios
... like Lu Yen is using
(many of them Westinghouse-produced)
and now in service
on every fighting front

are the forerunners
of advanced communication
equipment and systems
that Westinghouse research
is already busy developing—
for factories—stores—offices
ships—planes—trucks—trains
... to enable men to talk
and work together—more efficiently.

So—come peacetime...
look for “Westinghouse”
on the finest communication and
electronic equipment—of all kinds!

Westinghouse RADIO DIVISION Baltimore, Md.

Figure 3.
superiority. President Franklin Roosevelt, speaking in October 1943, summed up the American government’s position in a message urging Congress to repeal the Chinese Exclusion Act. He stated, “China is our ally. . . By the repeal of Chinese exclusion law, we can correct a historic mistake and silence the distorted Japanese propaganda.”

Roosevelt’s reasoning won over lawmakers. In late 1943, the Chinese Exclusion Act was finally repealed, though only 105 Chinese nationals could now enter the United States each year.

The same year the ban on Chinese immigration was lifted saw a series of new propaganda posters depicting the Chinese, not as dangers to America, but as noble heroes fighting for the same cause as the United States. Such appeals to the masses were necessary, for the Japanese war in China had only just begun to change the American public’s view of the Chinese. American aircraft and pilots arrived in China not long after America’s entry into the war, and provided propagandists the opportunity to cast the Chinese as worthy allies of American fighting men. Figure 3 demonstrates this line of propaganda in the context of an advertisement for Westinghouse radio equipment. The ad depicts a Chinese man, named Lu Yen, wearing the conical hat stereotypically associated with Asian peasants. This Lu Yen character is alerting American airmen to an incoming squadron of Japanese bombers. The text of the ad describes the results, “Our lads won’t be caught napping . . . Teamwork-talk and tactics by radio takes good care of that.” The text implies that, were it not for Chinese lookouts like the man depicted, many more American servicemen would die at the hands of the Japanese. Far from being a threat to “true-blue” Americans, the Chinese save

12 Quoted in Takaki, *Double Victory*, 119.
13 Dower, *War Without Mercy*, 170
American lives. The dangerous foreigner that was the Chinese laborer is transformed by this image into a hero, a partner in America’s global struggle. China was not a danger, but an ally.

Wartime propaganda praised the heroism of the Chinese, citing them as an example to the American public, as China had been locked in war against Japan far longer than the United States. Despite the sufferings the Japanese had inflicted on China, the country had remained in the war and its endurance was a useful model for American propagandists. Such propaganda often called for civilians to turn in scrap metal to be reprocessed into war materiel. Getting Americans accustomed to peacetime plenty to round up spare metal required a publicity campaign in which China played a part. Declaring, “These men know something about scrap,” a poster from 1943 shows three battered Chinese men (see Figure 4). Beneath the image, the text indicates they have just survived a Japanese air raid on Chungking (modern Chongqing), the wartime capital of the Nationalist Chinese. Imagining a conversation with the Chinese men, the poster makes the point that the Chinese even use fragments of exploded Japanese bombs as recyclable scrap. The viewer is invited to follow their example, lest America face Japanese bombs. Hidden in this small piece of wartime propaganda, the viewer can detect the changes in public perception of the Chinese. Before the war, most White Americans would never even consider speaking to the Chinese, such was their hatred for the foreigners. That a conversation between an American and a Chinese person could even be imagined is a remarkable change, much less one in which the Chinese person offers advice to the American. Men who only a few years earlier could not even legally enter the United States suddenly

16 Dower, War Without Mercy, 154.
LEW struck up a conversation with a Chinese citizen in bomb-shattered Chungking, and brought up the subject of America's metal-salvage drive, he might say something like this:

"As soon as the Jap bombers have gone and the all-clear signal sounds, we Chinese carefully gather the bomb-fragments and turn them in for scrap. For in China, every ounce of metal is precious.

"One way to keep that kind of scrap away from your cities is to turn in every other kind!"

The sooner every bit of scrap is turned in — be it unused door-keys or unused heavy machinery — the sooner we and freedom's fighting friends will live in peace and happiness once more. . . . There is still a lot of scrap uncollected.
Let's get it in — quick — because "Uncollected scrap means undefended Asia!"

This is an advertisement of the Pelt & Tarrent Manufacturing Company, 1714 North Paulina Street, Chicago 22, Illinois; makers of
COMPUTER, ALGEBRA, ACCOUNTANCY MACHINES

Figure 4.
Figure 5.
became models for the American public. Whether or not the Chinese really were models of scrap collecting is unimportant. What matters is that this particular message chose the Chinese to be the example to the Americans, rather than ethnically White allies like the British. Again, the realities of war gave the propagandists no choice. The Chinese knew all too well the sacrifices necessary to wage war, and their contribution to the war against Japan could not be ignored. No longer could Americans think the Chinese inferior, for they were now comrades-in-arms.

The harsh reality of war always includes the sufferings of the civilian population, and it was the suffering of Chinese civilians that had decidedly turned American public opinion against Japan even before the attack on Pearl Harbor. The horrors of the Rape of Nanking were fresh in the minds of Chinese and Americans alike, and the genocidal nature of Japan’s war in China was an excellent vehicle for Allied propaganda. The atrocities gave America’s propagandists a chance to both demonize the Japanese and humanize the Chinese. The same propagandists were not above guilt-tripping Americans or pulling at their proverbial heartstrings. An appeal from 1943 used many images designed to arouse pity from the viewer, including a crying Chinese baby (see Figure 5). The accompanying text explains that the infant was orphaned by a Japanese bomb, but tells the viewer, “Your dollars can bring this baby back to a useful life in the new China to come.”17 Those words—“the new China to come”—imply that the American viewer has some responsibility for the welfare of China after the war. This sentiment is a far cry from the prevailing attitudes before the war, namely, that the Chinese were hopelessly inferior and were to be kept as far away from the United States as possible. Yet that was before

the Japanese invasion and the horrible imagery that came from Nanking and Chungking. Such terrifying scenes were perfect fodder for propagandists who condemned the “barbarian” Japanese, but for the Chinese the war had the opposite effect. They were humanized, a people suffering from the same pains of war that afflicted—or could have afflicted—America. China was now a victim of Japanese brutality, just as the United States had been at Pearl Harbor. What divisions race had created in the past were almost completely swept away by the ravages of war. American leaders did not humanize the Chinese based on moral considerations, but rather on the practical consideration that one cannot offend one’s wartime ally. Still, the effect was to change popular imagery, and the “barbarian” depiction of the Chinese was replaced with a sympathetic one in the American media.

Like the Chinese, Korean Americans saw a positive change in their public perception after the outbreak of war. In their case, however, the change was even more dramatic given the unique situation of Koreans. Ethnically and linguistically distinct from Japan and China alike, Korea was an independent kingdom until the Japanese conquered the peninsula in 1910. Koreans bitterly resented the seizure of their homeland, and harbored a deep hatred of the Japanese as a result. Nonetheless, Koreans were legally subjects of the Japanese Empire, and were considered as such by the American government. Thus, after the attack on Pearl Harbor, Korean Americans found themselves lumped together with the Japanese and dubbed “enemy aliens.”\(^\text{18}\) Enraged at being identified with their historic oppressor, Koreans rushed to prove their loyalty to the United States. Many Korean Americans enlisted in the military, and many more raised funds for the war effort. For a small and impoverished community, this was no easy task, making the sacrifices the

\(^{18}\) Takaki, *Double Victory*, 126.
Korean community made even more impressive. By offering their meager earnings and, more importantly, their lives to the United States, Koreans succeeded in altering public opinion of their community. Though a bill in Congress to change Koreans’ legal status did not pass (and no changes in Koreans’ status would take place until after the Korean War of 1950-1953), in practice public perception did change for the better.\textsuperscript{19}

Once again, propaganda advertising reflected the changing reality. White Americans had previously scorned Koreans as much as they had other East Asians. World War II forced Whites to acknowledge that the Koreans, like the Chinese, were as much victims of Japan’s imperialism as the United States. As victims, they were the perfect poster children for those wishing to proclaim Japan’s cruelty to the masses. Figure 6, dating from 1943, explains that the Koreans are Japan’s longest-suffering colonial subjects. Even the industrial workers of Japan are victims of the Japanese military and its oppressive rule, the ad proclaims. Should America lose the war, the advertiser warns, she “could not possibly expect a higher level of living than that which Japan allows other conquered peoples or the workers of Japan itself.”\textsuperscript{20} In defeat, Americans, like the Koreans and even the Japanese working class, will be forced to work for a brutal Japanese military class that declares, “No pay—so sorry.”\textsuperscript{21} In hindsight, the notion that Japan would invade and annex the United States is preposterous, and even the most extreme Japanese militarists never planned to conquer America, only to defeat her on the battlefield, guaranteeing Japanese hegemony in East Asia. Even so, few things provide as much

\textsuperscript{19} Ibid., 128.


\textsuperscript{21} Ibid.
It is probable that no people in the world so fully comprehend what Japan is fighting for as the once happy nation of Korea. Since 1910 they have seen their lands, their livelihoods, their homes and their very lives taken over by the brutal Japanese feudal system that has enslaved every people the Japanese army has ever conquered, . . . including the people of Japan itself.

From the Jap viewpoint the Koreans are not oppressed. They have merely been brought into the Jap scheme of things . . . assimilated in much the same way that the Japs fitted modern machinery into an existing pattern of slavery within Japan. Where other nations adaptedcted machines to free themselves from drudgery and want, the Japs combined machines with slavery to challenge the security of free peoples the world over.

The plight of tea pickers in Korea or of factory workers in Trieste or Odessa may not seem of any immediate importance to you. But consider it in the light of just one fact which cannot be denied . . . a defeated Austria could not possibly expect a higher level of living than that which Japan予以 the conquered peoples at the whims of Japan itself.

Figure 6.
motivation as the threat of foreign invasion. Given Americans’ fear of the “Yellow Peril,” this line of propaganda was especially effective. Once again, however, the need arose to differentiate between the Japanese attackers and the American allies in the Far East. Koreans could not, as they had previously, be lumped together with the Japanese; few were as determined to smash Japan as the Korean population. To remind White Americans of this distinction, and to use that distinction as a weapon to stoke popular opinion, propaganda mixed fear of a Japanese invasion with pity for those already under Japan’s colonial thumb.

There were, of course, limits to how progressive American propaganda was in depicting her Asian allies against Japan. Racism did not vanish overnight even in the face of total war. The new, “official” line, that the Chinese were not threats but friends, emerged only after the United States entered a war that had already raged for many years. The propaganda that emerged after Pearl Harbor focused primarily on the Chinese in China, and not on the Chinese-American community, as evidenced in the examples described above. Thus, while depictions of the Chinese were now sympathetic, Chinese people were still characterized as foreign. At home, Chinese Americans still faced discrimination in hiring, at least until the wartime need for labor opened up new opportunities in areas such as manufacturing. Korean Americans at first saw no changes to their status, as the American public at large still classified them as “Japanese.” Only when the American authorities realized that the Koreans shared White Americans’ hatred of the Japanese did the American media change its tune. No such change applied to the Japanese, and viciously racist stereotypes of East Asians persisted in anti-Japanese propaganda. Indeed, the war worsened conditions for Japanese Americans. While the Chinese and Koreans became heroes, the Japanese-American community on the West Coast
was forced into internment camps on the mere suspicion of disloyalty. World War II softened anti-Asian racism in the United States, but it did not kill off all prejudice.

Still, the Second World War began to change the racial status quo in America. Racism against East Asians had always been based on the “otherness” and “barbarity” of Asian peoples. War brought the shocking reminder that the peoples of China and Korea were not only distinct from the Japanese, but also that they, too, had suffered from Japanese aggression. Indeed, the peoples of East Asia had suffered from Japanese brutality far longer than the United States, and now the endurance of the Chinese in particular served as an ample model for the American public. American politicians also changed, finally repealing the discriminatory laws that had long barred Chinese and others from entering the country. Granted, the politicians were motivated by a desire to please a wartime ally rather than any moral considerations, and only a token handful of Chinese could actually enter the United States. Koreans fared worse, having to wait many more years for a change in legal status. None of this minimizes the importance of the changes that did occur. The Chinese Exclusion Act was one of the most racist laws ever passed by the United States, but it was also the first such law to be repealed. Whereas the Jim Crow laws discriminating against African-Americans were not repealed until after a major social protest movement, the end of Chinese exclusion was a sudden shift in American policy. War had forced the hand of White politicians, and had overnight changed the legal status of a previously discriminated group. The image of the “yellow barbarian” remained, but the stereotype had been compromised. For the first time, the non-white peoples of the Far East were depicted as friends, not enemies, of the American people. The days of exclusion were numbered.
GRAVE OF THE FIREFLIES: VICTIMHOOD AND MEMORY IN JAPAN DURING THE 1980s

Laura Fogarty

The victims of the atomic bombings of Hiroshima and Nagasaki during World War II will continue to serve as both a warning and a reminder of the consequences of the Nuclear Age in which we now live. Unfortunately, the trauma of these events has also allowed the world to forget the victims of the firebombing campaigns carried out by the United States against the Japanese mainland during 1942-1945. These campaigns resulted in catastrophic damage to Tokyo, Nagoya, Osaka, Kobe and sixty-two other cities. In fact, by the end of the attacks only five Japanese cities remained unscathed.¹ This paper attempts to address the imbalance by examining a film that serves as a testament to the importance of historical memory by focusing exclusively on the firebombings. Grave of the Fireflies, an animated film released by Studio Ghibli in 1988, opens with the words, “September 21st, 1945. That was the night I died,” spoken by the ghost of Seita, a victim of the firebombing of Kobe. From the very beginning of the film, the audience realizes what the tragic outcome will be, but they

will nevertheless be saddened and even outraged by what is to come. Although *Grave of the Fireflies* has received admiration for its powerful emotional impact, it is not always considered a viable historical source. This paper will demonstrate that *Grave of the Fireflies* serves as an invaluable resource for gauging Japan's memory of the war during the 1980s by showing that anime served as a visual representation of the Japanese peoples’ struggle to come to terms with the aftermath of World War II, and will examine the effect of victimization on the Japanese people.

The film follows Seita and his sister, Setsuko, on their journey through the firebombing raids after the destruction of Kobe, their home. Both children experience horrific trauma, which demonstrate the terrible power of the firebombing, including the death of their mother, cruel treatment at the hands of their aunt, and a slow decline and eventual death from malnutrition. The United States began its aerial assault against Japan in 1942 with the Doolittle raid, which targeted the Japanese mainland in an effort to improve American morale after the attack on Pearl Harbor while simultaneously challenging Japanese military supremacy in East Asia. In 1943-1944 the United States followed up on its initial assault by targeting Japanese cities to demonstrate the efficacy of firebombing.\(^2\) Finally, in 1945 the United States captured Tinian and Guam, which allowed it to carry out a series of massive attacks on the Japanese mainland.\(^3\) According to the US Strategic Bombing Survey, the purpose of these raids was to “either . . . bring overwhelming pressure on her to surrender, or to reduce [Japan’s] capability of resisting invasion . . . [by destroying] the basic economic and social fabric of the country.”\(^4\) The initial strike occurred on March

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\(^2\) Ibid., 4.

\(^3\) Ibid.

\(^4\) Ibid., 16.
9-10, 1945 with the bombing of Tokyo, resulting in an official death toll of 100,000. Some historians have found this number suspiciously low, and speculate that it was much higher. This was followed by further strikes against Tokyo, Nagoya, Osaka, Kobe and sixty-two others.

Grave of the Fireflies communicates the scope of this attack through the constant repetition of bombers dominating the sky, as well as references to the other cities that were bombed. The decision to exclusively focus on the firebombings and scrupulously avoid any mention of the two atomic bombs deployed against Hiroshima and Nagasaki is curious, given the obvious focus on Japanese victimization during the film. The bombings could have easily been mentioned during a scene at the end of the film where Seita is confronted with the news that Japan surrendered unconditionally, but it seems that the filmmakers purposefully avoided the subject.

The conspicuous absence of the atomic bombs in the film could be dismissed if there was a news blackout, but it appears that word of the bombs was readily accessible by means of radio and newspaper in Japan before the American occupation suppressed all information concerning the bombing. A possible explanation is a reluctance to address the bombing in an animated format. This explanation is unsatisfactory due to the presence of animated films like Barefoot Gen (1983, 1986), which revolves around the bombing of Hiroshima and presents a particularly gruesome illustration of the bomb blast.

The presence of films like Barefoot Gen and Grave of the Fireflies suggests that anime is a medium capable of delivering “tragedy, adventure, even psychological probing of a kind seldom attempted in recent mass-culture Western film or

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5 Ibid., 11.
6 Ibid.
television.” The rise of anime began in 1915, after the Japanese produced their own animations in earnest for the first time. It seems likely that these works were in response to earlier Western animated films, which debuted in Japan as early as 1909. These efforts were “overshadowed by Japan’s superb live-action cinema and existed only as a fairly marginal and largely child-oriented alternative.” Nevertheless, the nascent animation studios persevered. The onset of World War II allowed the studios to play a larger role, as animation became a highly effective propaganda tool because of its cheapness, quick production time, and its effect on the Japanese youth, in particular.

The American occupation put an end to this practice by enacting a series of strict censorship laws concerning propaganda, which targeted the Japanese animation industry. Some animators were spared due to the fact that they had been barred from producing animations and comics during World War II. Osamu Tezuka, the creator of the famous series Astro Boy, which firmly established the tradition of animated television series that continues to this day, was one of the fortunate. This particular example is helpful because even though Tezuka was a self-professed admirer of Disney, he adapted animation to his own purposes and ultimately transformed it into a medium that was capable of handling a wide variety of subjects and genres without a stigma of childishness and simplicity that is characteristic of Western animation.

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8 Ibid., 16.
After the 1960s, the Japanese film industry faced increasing competition from Hollywood, which led Japanese studios to explore more economically viable alternatives. They found anime to be a suitable substitute due to its cost effectiveness, the wide variety of possible topics, and the popularity of manga, which often serves as the inspiration for anime.\(^\text{10}\) By 1999, “at least half of all releases from Japanese studios were animated.”\(^\text{11}\) In anime, the studios found a way to create a relatively cheap product that did not have to compete with Hollywood films.\(^\text{12}\) In Japanese culture, anime was ubiquitous and immensely popular.

Nevertheless, Sharon Kinsella demonstrated that all was not well in the Japanese cultural consciousness. She examined the Japanese reaction to anime during the 1980s and 1990s, labeling it a “moral panic” due to its impact on the youth of Japan.\(^\text{13}\) She tracked the upsurge of these panics during the 1980s, and especially during 1995, and determined that they were generated by the disproportionate number of animated films, which dealt with violence, apocalyptic futures, and a fundamental psychological disquiet exhibited by some of the genre’s most memorable characters.\(^\text{14}\) Susan J. Napier further explored this relationship by linking the prevalence of apocalyptic anime to the destruction of the pacifist industrial identity that the Japanese people crafted after World War II. This proved to be ineffective as evinced by the collapse of the stock market in 1989 as well as the continuing legacy of the atomic bomb.\(^\text{15}\)

\(^{10}\) Napier, *Anime from Akira to Princess Mononoke*, 19-20.

\(^{11}\) Ibid., 15.

\(^{12}\) Ibid., 16, 19.

\(^{13}\) Ibid., 8.

\(^{14}\) Ibid.

\(^{15}\) Ibid., 28.
Napier capitalized on the importance of the 1980s within the Japanese cultural psyche by maintaining that, “during the 1980s it seemed that Japanese society, with its superb bureaucracy, efficiently functioning government, and high technological expertise existed as a utopian alternative to what many perceived as the corrupt and decadent societies of the West.” The contradiction between Japan’s economic success and its bleak cultural outlook indicated that there were undercurrents in the Japanese utopia, which can be traced through the animated releases during the 1980s including the *Barefoot Gen* films and *Grave of the Fireflies* as well as the immensely popular *Akira* in 1988. All of these films are indicative of the negative mental state of the Japanese public during the 1980s due to their focus on either historical or fictional apocalyptic events.

Japan’s mental disquiet was partly due to the negative shift in its relationship with America during the mid-1980s. This shift was preceded by a period of remarkable growth in terms of American admiration and respect for Japan during the 1970s, elicited by the Japanese economic miracle that began to take shape. Over time, the source of admiration also became a source of tension as America began to feel threatened in terms of its economic and international power. Thus, Japan’s success generated American hostility. The antagonism was eventually articulated by the “Japan-bashing” phenomenon, which can be defined as “a label and a practice, though there was rarely agreement as to which precise practices it covered, apart from the expression of openly anti-Japanese views, or actual assaults on apparently ‘Japanese’ people and things.”

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16 Ibid.

The development of “Japan-bashing” had a profound effect on Japan and its people, who responded with anger, hatred, shock, confusion, and most importantly, by closely following and analyzing the evolution of Japan-bashing. In fact, by the 1990s, the term was more prevalent in Japan than in the United States, with only twenty-one percent of Americans being familiar with Japan-bashing in contrast to fifty-four percent of Japanese.\(^\text{18}\) Predictably, the Japanese public did not remain complacent in the face of this new aggression. Instead, there were two major responses to Japan-bashing. One was to try and bridge the “perception gap,” which prevented non-Japanese from having a true understanding of Japan. The second was to fight fire with fire by engaging in America-bashing.\(^\text{19}\)

The phenomenon provides some insight into the creation of the negative mental state among the Japanese during the 1980s and illustrates that not all Japanese accepted their new pacifistic identity. It was not their identity; rather, it was that which the Americans crafted for them and forced them to accept. The situation was aggravated by the fact that even those Japanese who accepted it were still alienated by American hostility. This fundamental problem fed into Japanese cultivation of the ideology of victimization, which states that the Japanese people were the ultimate victims of World War II and its aftermath. The Japanese government and military were some of the most common villains, which was indicative of the conflict within Japanese society itself. In general terms, the Japanese people characterized their victimhood by their government and military in two ways. The first method was to emphasize “the hardships of the people during the war stemming from heavy taxation,

\(^{18}\) Ibid., 83.

\(^{19}\) Ibid., 89, 93.
difficult working conditions, and the lack of provisions.”

The second way was to criticize the military and the government for their aggressive actions, which had put their people at risk.

Both of these methods are shown throughout *Grave of the Fireflies*. Although there is little explicit criticism of the government in the film, it clearly illustrates the desperate condition of the Japanese citizens during the war, which illustrates the government’s indisputable failure to protect its people. The film also makes it clear that Seita is deeply affected by the failure of the military. During one scene, for instance, a stranger callously crushes Seita’s last hope for salvation by telling him that Japan surrendered unconditionally. Therefore, according to the ideology of victimization, the government and the military were solely responsible for all of Japan’s misfortunes.

Japanese victimization, as an ideology, was also deeply linked to the unconditional surrender of Japan and the subsequent American occupation, which forced the Japanese to completely reevaluate their identity. This process began with a brief period from 1945-1958, which Naoko Shimazu identified as a time of “catharsis” characterized by an “outpouring of autobiographical writings motivated by the desire to expose the evils of militarism.” This period concluded when a reactionary movement succeeded in creating “an implicit consensus that it was no longer acceptable to write ‘detestable and distasteful’ things about

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21 Bukh, “Japan’s History Textbooks Debate,” 694.

The American occupation, which initially encouraged Japanese distrust and suspicion towards their government and military in order to create a “post-war, peace-loving society,” triggered the movement. The stated intent of these reactionaries was to protect the families of those who died in the war, but it also conveniently brought an end to any discussion or apology for Japanese militancy, which allowed the idea of the Japanese people as the universal victims to take hold during the 1960s.

The abrupt shift in ideology did not give the Japanese an opportunity to come to terms with their militaristic past. Instead, the American and Japanese governments focused on rebuilding Japan as quickly as possible in order to create a bulwark against communism. To that end, Shimazu believed that both governments reinstated the “pre-1945 apparatus . . . under the new banner of liberal democracy. Not surprisingly, both the state and the elite were none too happy to keep mum and let the public blame the faceless and now symbolically necessary ‘militarists’ for the evils of the past.” Therefore, within the rhetoric of victimization the Japanese people were once again subject to manipulation by their government.

All of these manifestations of Japanese victimization are integral to understanding the overall message of Grave of the Fireflies. It is also necessary to examine the first incarnation of Grave of the Fireflies, which was a semi-autobiographical novel written by Akiyuki Nosaka about his experiences during the firebombings of 1945. He lost his family in the chaos, and

23 Ibid., 105.
was forced to care for his six-month old sister on his own. He
suddenly became the sole breadwinner for the small family,
which was a difficult task during wartime, and his hunger
drove him to feed himself before his sister. She eventually
succumbed to malnutrition and Nosaka was left alone with
his guilt. In 1967, almost twenty years later, Nosaka
published *Grave of the Fireflies* as a testament and an apology
to his sister. Later that year, *Grave of the Fireflies* won the
prestigious Naoki Prize, which brought it a significant
amount of attention from the Japanese public. Although the
stated purpose of the book was to serve as an apology to
Nosaka’s sister, it also fueled the victimization movement.\(^{27}\)

Victimization also purposefully ignores Japanese war
crimes against their Asian neighbors or shifts the
responsibility onto the government and the army. In spite of
this intentional avoidance, there is evidence that the Japanese
people knew about and supported their government and
military’s actions during its militant period.\(^{28}\) *Grave of the
Fireflies* allies itself with the victimization school of thought
by depicting the citizens as unaware of Japanese atrocities.
The clearest illustration of this ignorance is a scene from the
film where Seita recalls going to a naval review and the
positivity and hope that this memory engendered in him. He
made no reference to the victims of the Japanese military. The
struggle between those who wish to ameliorate Japan’s history
and those who feel that it is necessary to acknowledge the past
in order to learn from it, is still relevant today, as can be seen
from the conflict over the publication of a nationalistic text

\(^{27}\) Isao Takahata, “The Animerica Interview: Takahata and Nosaka: Two

\(^{28}\) Bukh, “Japan’s History Textbooks Debate,” 683.
book and the role of pro-war museums in educating the youth of Japan.\textsuperscript{29}

The trend of victimization continued through the 1970s, but by the 1980s the Japanese public’s fascination with World War II began to wane. Shimazu attributes this to a “demographic change . . . as the ‘war generation’ began to dwindle in Japan.”\textsuperscript{30} This trend of growing apathy clearly disturbed her because she continued by inquiring, “Is it inevitable that the memory of the war gradually fades as the war generation disappears? If so, who will continue the task of communicating the war/past to future generations? Or is it unhealthy for society to dwell on the war when the memory of it naturally becomes faint and distant through the process of time?”\textsuperscript{31} It is clear that there were others in Japan who asked the same questions due to the release of films like \textit{Barefoot Gen} and \textit{Grave of the Fireflies}.

The most problematic aspect of victimization within \textit{Grave of the Fireflies} is that there are many different antagonistic forces that are actively victimizing the two young and innocent siblings, Seita and Setsuko. These include the emblematic use of the sleekly modern B-29s to represent the Americans, which suggest that they are an impersonal, implacable and unpredictable enemy who cannot be fought. Despite the ominous characterization of the Americans, there is little to no discussion of them or their actions within the film. In fact, the only time that they are directly mentioned is at the beginning of the film, when a man says that all of the “bums are a disgrace [referring to Seita]” and that they should be gotten rid of before the Americans arrive. Therefore, the


\textsuperscript{31} Ibid.
Americans became a force that the Japanese felt the need to impress rather than one that should be resisted, which is troubling considering the tense relations between Japan and the United States.

Although the American bombers are represented as a negative force, there are far more prominent antagonists who are all too human in the film: the other victims of the firebombings and the war, who “reminds us that Seita and Setsuko’s story is only one of many tragedies.”32 These victims’ mutual experience should have bound them together, but instead it allowed them to brush off the needs of two children in the face of their own hardships. The film’s clearest archetype for this idea is Seita and Setsuko’s aunt. She denied them rations, cheated them out of the money from selling their mother’s kimono, and told Setsuko about their mother’s gruesome death, against Seita’s wishes. Unfortunately, she is just one of many, including the janitors at the beginning of the film, the passers-by who are disgusted by Seita’s condition, the angry farmer who beat Seita, and the doctor who does not understand the difficulty of obtaining food for Setsuko.

Seita is by far the most troubling antagonist, however. His desperate efforts to save himself and Setsuko—such as abandoning his duty as part of the fire-fighting corps in favor of taking Setsuko to safety, bearing the grief of his mother’s passing in silence in order to protect Setsuko, his efforts to provide food for the two of them, and delivering her from their aunt—ultimately contribute to Setsuko’s slow death from malnutrition. All of these antagonists complicate the idea of victimization beyond the parameters of the discussion of the ideology. The Japanese were victimized not only by the Americans, the government, and the military, but also by their fellow citizens. Therefore, the film was meant to both

uphold the victimization mentality and to challenge the Japanese people to accept their responsibility for their actions against their fellow citizens.

In addition, the film illustrates that World War II and its aftermath shook the foundations of Japan’s identity. This is shown by the destruction of the family unit as demonstrated by Seita and Setsuko’s mother and father being consumed by the war: the fires generated by the bombing of Kobe burn their mother and their father sinks into the depths of the ocean along with the rest of the Japanese fleet. But even before their deaths, Seita and Setsuko’s parents are problematic. Seita’s father is a phantom presence in the film, existing only in Seita’s memories and a photograph that Seita values above all other possessions. Nevertheless, it is clear that Seita idolizes his father and desperately wants to emulate him, as indicated by his military uniform and his efforts to care for Setsuko. Seita also views his father as their protector and believes that all will be well when he returns.

Despite Seita’s hopes, the fact remains that their father died during the American invasion, which was the final betrayal of his core beliefs and faith in the military. Seita’s response can be related to the communal Japanese experience during the war and was no doubt a common reaction. Strangely, in the film he is the only one shown reacting so violently to the Japanese fleet’s defeat. This is presumably due to Seita’s purposeful isolation from the community, but there is no real sympathy from the man who told him about the defeat and surrender. The Japanese people were already wrapped up in attempting to distance themselves from the war and its victims.

One of these casualties is Seita’s mother. The audience is told that she has heart trouble early in the film and so there is already an allusion to the weakness of women and their need for protection. However, she is horrifically burned in the
initial bombing and dies from her wounds soon after. Thus, Seita and Setsuko are stripped of their security blanket, although memories of their mother still serve as reminders of better times of peace and security, as evinced by Seita’s memories of a family portrait and a trip to the beach. Seita responds to this loss by attempting to serve as a surrogate mother for Setsuko, who becomes the helpless female who must be protected at all costs.

On the other hand, Setsuko attempts to care for Seita by assuming the vacated role of their mother, performing household chores in the abandoned bomb shelter. Sadly, Setsuko ultimately fails in her attempts to retain a semblance of traditional family life. Her death signifies the destruction of the familial structure as well as the death of innocence, which can be laid at the feet of Japan’s disconnected wartime society and Seita’s defeat in the face of insurmountable odds. It is also important to note that Setsuko only dies after Japan’s surrender. This underlines the futility of the struggle of both the military and civilians. Over the course of the war and their fight to stay alive they lose sight of the very tradition and innocence that they were presumably attempting to protect.

*Grave of the Fireflies* was meant to educate, remind, and ultimately challenge the Japanese public about the war from which they were attempting to distance themselves. The final scene, where the ghosts of Seita and Setsuko overlook the modern and industrial Kobe that replaced their home, shows that the ghosts of the past, like memory, can never be erased. *Grave of the Fireflies* serves as a visual representation of the Japanese struggle to come to terms with the aftermath of World War II. In addition, the film is an examination of the effect of victimization on the Japanese people. Since the 1980s two more live action versions of the film have been released, which shows the enduring significance of *Grave of the Fireflies* in this continuing dialogue as well as the importance of victimization and war memory in Japan.
The post-World War II airline industry experienced a short-lived burst of economic prosperity fueled by civilians eager to embark on planes no longer used solely for military purposes. When the initial “big post-war ticket buying rush”\(^1\) waned, airlines launched advertising campaigns of customer appeal featuring both married and unmarried women. By focusing on the concerns and needs of married women, airlines capitalized on American society’s post-war enthusiasm for traditional gender roles. Targeting unmarried women as potential customers reflected the airline industry’s recognition that many women who worked outside of the home during the war would continue to do so in peacetime. However, the advertisements reinforced that single women hired as stewardesses would complete traditional women’s work at increased altitudes. While women held pride of place in the airline industry’s postwar advertising campaign, that exposure did little to elevate women out of the kitchen and nursery.

In the wake of World War II and the rise of the Cold War, men and women carried out their daily work mostly in

separate spheres: “‘Traditional’ family [became] the best means to achieve national and personal security.”

Just as white, affluent families were most likely to achieve the American dream of a home in the suburbs, so too were they a frequently demographic in airline advertisements. These advertisements also primarily centered on women, reflecting advertisers’ goal to appeal to the position of women as overseers of household finance.

Airline executives “redoubled their efforts to sell to women” after World War II, reflecting a national trend in

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3 Ibid., xxiii.

which women were cast as main supporters of consumerism.\textsuperscript{5} Federal funding for reasonably priced postwar housing construction opened up affordable avenues to the middle class for working class families, while a fifty percent income increase for all Americans between 1935 and 1950 initiated a new era of spending.\textsuperscript{6} Upward economic movement allowed many couples to adhere to the binary of American consumerism in which the husband earned a salary and the wife made purchases for the family.\textsuperscript{7} Between 1935 and 1950, spending for household goods and recreation rose by 108 and 185 percent, respectively, in a consumer culture in which families of equal affluence exhibited spending patterns which revealed “a great deal of conformity in their consumption attitudes and behavior.”\textsuperscript{8} Contemporary studies of consumers revealed that many women, often wary of financial indulgence, were more willing to buy a product or service that was advertised to strengthen family relationships.\textsuperscript{9} Airline advertisements geared to married women suggested that planes allowed easy travel and fostered a sense of togetherness among family members, just as a living room television allowed for recreational bonding.

A 1948 American Airlines advertisement in \textit{The New York Times} highlighted the industry’s eagerness to portray flying as an affordable travel option that would allow married couples to spend time socially with one another.\textsuperscript{10} The advertisement focused on a smartly dressed woman ascending the stairs to a plane behind her husband, who has turned to look adoringly

\textsuperscript{5} May, \textit{Homeward Bound}, 148-149.
\textsuperscript{6} Ibid., xviii, 148.
\textsuperscript{7} Ibid., 148, 149.
\textsuperscript{8} Ibid., 148.
\textsuperscript{9} Ibid.
\textsuperscript{10} “Half Fare Plan to California,” \textit{New York News}, 1948, http://library.duke.edu/digitalcollections/adaccess_T0299/. See Figure 1.
at his wife as she cheerfully shares, “I’m going with my husband for half-fare!” For middle-class couples with disposable income but a disinclination for extravagance, the text reinforced the financial and emotional benefits of traveling with a spouse. The woman’s location and posture in the advertisement adhered to the convention among airline companies to feature “women as passengers, smiling reassuringly, usually in some contrived position such as mounting the stairs to the aircraft cabin, silk scarf blowing decorously in the wind.” The woman’s countenance and calm demeanor relayed her confidence in her upcoming trip and combated the pre-war image of an agitated female flier nervous about plane safety. The composition of this advertisement, in which the woman’s husband leads their ascent to the plane, encouraged wives to extend the trust they felt for their husbands to the trust they should hold for airline’s competence in securing passenger safety and comfort. Characteristic of trends in the era, the advertisement prominently featured a woman but reinforced the culturally supported view that a married woman’s place is behind her husband, both at home and in the air.

Expanding on the demographic of married women, airline advertisements also appealed to married women traveling with children. Advertisements emphasized in-flight services that allowed mothers to travel comfortably without their husbands and reach their destination feeling “rested and

11 Ibid.
13 Solberg, Conquest of the Skies, 333.
On your very first trip you'll discover there's nothing like a Flagship for mothers traveling with a baby. Certainly there's nothing like it on earth for sheer convenience! The trip is so short you can travel light... no need to lug along cradles of clothing and diapers.

There's nothing like it at mealtimes either! They're absolute pleasure times with baby's special prepared food served when he wants it... how he wants it.

But at journey's end—oh, that's when you really count your Flagship blessings. For not only will baby be a cheerful cherub (if he isn't already asleep), but you yourself will still feel rested and relaxed. Air travel alone makes this possible.

“...There's nothing like it ON EARTH for traveling with a baby!”

ALL YEAR AROUND, TRAVEL IS BETTER BY AIR... BEST BY AMERICAN AIRLINES INC.

Good Housekeeping Dec. 1949

Figure 2.
"I thought it would be hard to take the children so far!... (until another mother told me about TWA)"

"When Jim said he couldn't go, I really gave up the trip. The very thought of our taking these two youngsters from coast to coast was just too much. Then I had an idea. Why not hire a baby-sitter? And someone said, 'Try TWA Stewardess... and here it was really quite easy and inexpensive. Well, that settled it and we enjoyed it now.

TWA people have been so helpful and pleasant, from the first I called TWA. They told me how babies can go for half fare because they're under 3, and we thought of a way to have the children be comfortable during the flight. They're made to fly very comfortably. Even for two young ones, the children have been all right. They even have baby food and milk and all the children are happy. People have been very nice. I don't know how I'd have gotten there without TWA."

ACROSS THE U.S. AND OVERSEAS... YOU CAN DEPEND ON}

TWA Fr anzWorld Airlines
relaxed.”  

A 1949 advertisement for American Airlines featured a beautiful mother cradling her smiling infant on her lap, with the caption, “There’s nothing like it on earth for traveling with a baby!”  

The text highlighted the assistance that the airline provided mothers, especially at meal times, which were described as “absolute pleasure times with baby’s special prepared food served when he wants it . . . how he wants it.”  

Similarly, a TWA advertisement in the *Saturday Evening Post* showed a mother traveling with a happy elementary-school aged boy and a smiling toddler, accompanied by the caption, “I thought it would be hard to take the children so far! . . . (until another mother told me about TWA).”  

The advertisement outlined all the complimentary conveniences, like “baby food and bottles” offered during the flight. The inclusion of a stewardess in the scene, kindly extending a bottle to the youngest child, demonstrated the airline’s promise that mothers would be assisted in childcare during the flight. Through these types of advertisements, airline companies targeted female audiences as both wives and mothers, reinforcing standard gender roles while appealing to a client base underdeveloped during World War II.  

While postwar trends encouraged the return of women to the domestic sphere, the airline industry recognized that their consumer base still included single, working women.

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14 “There’s nothing like it on Earth, for traveling with a baby,” *Good Housekeeping*, 1949, http://library.duke.edu/digitalcollections/adaccess_T0350/. See Figure 2.

15 Ibid.

16 Ibid.

17 “I thought it would be hard to take the children so far!,” *Saturday Evening Post*, 1950, http://library.duke.edu/digitalcollections/adaccess_T2346/. See Figure 3.

18 Ibid.
Depicting attractive, well-dressed women, these advertisements tailored for single women the industry’s message that air travel was comfortable and desirable. A 1950 American Airlines ad in the *Ladies Home Journal* sported the caption, “I’ve just taken my first airplane flight and it was wonderful,” spoken by a glamorous, smiling woman walking away from a plane with her arms spread wide.\(^{19}\) A similar ad in *The New York Times Magazine* encouraged single, female friends to travel internationally; it featured two young women transposed on a flight map of their “‘big’ time in a short time” trip to London, Paris, Amsterdam, Copenhagen and Stockholm.\(^{20}\) To entice single women to use its airline, TWA created the “‘Who Says It’s a Man’s World’ advertisement as well as a magazine advertising campaign featuring a fictional character named Mary Gordon . . . [who] assured women they did not need the company of men to enjoy traveling.”\(^{21}\) The language used in this and similar advertisements for other companies revealed the industry’s sensitivity to female travelers’ concerns about safety and reputation while traveling alone. For example, airline companies used advertisements to emphasize how flying relieved single women of potentially awkward interactions with other passengers, as might occur if required to share a table in a railroad dining car.\(^{22}\) By appealing to independent, single women, airline advertisements introduced the allure of traveling to a demographic from which the airline industry would hire its stewardesses.


\(^{20}\) “How to have a ‘Big’ Time in a short time,” *New York Times*, 1949, http://library.duke.edu/digital collections/adaccess_T0368/. See Figure 5.


\(^{22}\) Ibid., 158.
Figure 4.
The airline industry’s need for single women to serve as stewardesses, completing domestic tasks on planes, revealed the trend in post-war jobs that upheld standard gender roles. Despite the popular image of pants-wearing women working in factories, most wartime jobs for women echoed the domestic duties they also completed at home: “wartime ultimately reinforced the sex-segregation of the labor force.”

In the late 1930s and early 1940s, women were judiciously admitted into the airline industry as mechanics and engineers, a trend necessitated by President Roosevelt’s request for the annual production of 50,000 planes, which rocketed aviation

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from the forty-fourth to the number one United States industry. The routine sight of female mechanics was spotlighted in the image of the tool-wielding woman featured in American Propeller Corporation’s 1943 advertisement praising “unsung, sweating ground crews.” In fact, women, many trained and placed in jobs by programs like Women Apprentice Mechanics, constituted thirty-five percent of TWA’s employees by 1943. With women benefitting from gender-neutral laws standardizing workdays, wages, and health insurance, a June 1943 article in Education for Victory proclaimed “’[t]hat old sign—‘Men only’ no longer frowns unchallenged at the door of American Aviation.’” However, while women were encouraged to fill wartime positions in male-dominated fields, the post-war relegation of most women to jobs centered on domestic tasks revealed that “the rallying cry of the United States in the cold war was ‘freedom,’ not ‘equality.’”

In hiring women as stewardesses, airline companies participated in the national postwar reallocation of female workers from industrial jobs, which men returning from war wanted to resume, to service-based jobs. No longer in need of female mechanics, the airline industry laid off 800,000 women in the fall of 1945 in a firing trend that ended with two million women dismissed from myriad industrial jobs by 1946. Although this caused The New York Times reporter

26 Douglas, United States Women in Aviation, 23.
27 Ibid., 19.
28 May, Homeward Bound, xix.
Lucy Greenbaum to declare “[t]he courtship of women workers has ended,” airline advertisements from 1948 to 1955 nonetheless revealed companies’ concerted efforts to appeal to potential female employees. The number of airline stewardesses rose by four thousand between 1945 and 1955, and these women were consistently featured in print advertisements as “the representative[s]” of the airline industry. The airline industry did not attempt to persuade all their previous female workers, many of whom reported satisfaction with their domestic activities, to return to the industry. Rather, airline advertisements were composed to appeal to a certain type of ambitious, single woman.

Three advertisements run by United and American during 1951, 1953, and 1954, show how airlines appealed to potential female employees by illustrating the stewardess position as a job demanding training, professionalism, and precision. These depictions of a “career in the sky” combated widespread media criticism that marked the job as “bride school”; many stewardesses quit within two years to get married. The educational requirements for stewardesses extended beyond those for matrimony. The 1951 United advertisement printed in the Chicago Tribune stipulated that an applicant must be “a registered nurse or have two years of college” or an acceptable equivalent of business experience.

Ibid.


Lyth, “Think of her as your mother,” 6.

May, Homeward Bound, 23.


Solberg, Conquest of the Skies, 336.

Work the world's best planes... work the world's best trained pilots to fly them... there's still one thing more you need to get that tensely awaited sign-off — "All our planes returned" — at the end of the Air Force communiques.

It is that which exists in the minds and the fingers of American boys who grow up tinkering and fumbling — making things that run and work, out of bits of wire and healthy sweat and sound American ingenuity.

No more magnificent job has been done in this war than is done by the unsung, sweating, ground crews. What they learned tinkering in thousands of American back yards is saving lives and winning battles every day in Freedom's now front yards all over the world.

And our taxes promptly paid... our purchase of Bonds and still more Bonds... is part of the support that they must have.

Figure 6.
Each of the advertisements also emphasized the training that accepted applicants would undergo; the 1951 United ad explained that “you fly to Cheyenne, Wyoming, for training at company expense,”38 while a 1953 United ad described the exclusive “girls’ school”39 to train stewardesses. Training was not inconsequential; stewardesses learned “inflight procedure, airline routes and codes, company history and policy . . . stewardess regulations, and geography.”40

Stewardess training became integral to industry-wide advertising campaigns as yet another reason why airline travel was safe and pleasant. As airline scholar Peter Lyth notes, the 1953 advertisement featuring the pretty stewardess being awarded her wings at her graduation ceremony emphasized the “pride in joining the ‘team,’ much as a soldier would feel

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38 Ibid.


Figure 9.
Figure 10.
pride in completing his training and joining a famous regiment.”41 This allusion to the military transcended companies, as seen in the American Airlines ad’s description of its flight attendants as “the largest ‘air force’ of any airline in the country.”42 A well-prepared stewardesses, according to a 1954 American Airlines ad, served on the Flagship Fleet as one of “15,000 trained and experienced men and women.”43 A 1951 National Geographic photograph of three flight attendants, each neatly dressed with short hair and pretty features,44 made the stewardesses appear very much like “World War II WAC corporals.”45 This picture reinforced the claims of airline advertisements that stewardesses received rigorous training and informed potential employees that the career would be a legitimate and respected one.

Those same stewardesses who were thoroughly trained were also expected to be equally beautiful. Most airline advertisements featured attractive cabin staff, and the advertisements from 1948 to 1955 reflected an industry-wide trend in which executives favored applicants who met certain standards of beauty and expectations of presentation. An image of a female employee engaging in a “pre-flight check” revealed company expectations for its stewardesses:

41 Lyth, “Think of Her As Your Mother,”11.
43 Ibid.
44 Anthony B. Stewart, “Flight attendants stand and talk beneath airline advertising posters,” National Geographic. See Figure 10.
Stewardess is your: smile friendly and sincere, posture erect and poised, hair short and styled, make-up neat and natural, blouse fresh and pressed, ribbon new and trimmed, nails manicured and polished, gloves white and tailored, uniform clean and pressed, purse orderly and polished, shoes repaired and shined.46

The “youth, vitality, and feminine charm”47 expected of stewardesses reflected a Hollywood-like allure.

Advertisements for stewardess positions emphasized that the job itself was as “respected and glamorous” as the model employees depicted in the ad campaigns.48 A United 1952 ad featured a personality named Mary Mainliner, who was created by the company to be the embodiment of the ideal stewardess—beautiful, clever, gracious, and caring.49 The advertisement includes a letter written by Bob Hope after his recent nationwide tour, thanking her for “the speed, the dependability, and the downright comfort of that big DC-6 bird of yours.”50 The advertisement, which shows Mary Mainliner and Bob Hope beneath the title “Bob Hope and I love to fly,” implies that the airline’s famous clientele make the job of stewardess a charmed one.51

Hollywood films in the 1930s championed single, ambitious actresses and the career-centered characters they played on screen, supporting a kind of female independence that dwindled on film as audiences embraced a return to real-

46 Ibid., 79.
47 Douglas, United States Women in Aviation, 79.
48 Kolm, “Women’s Work and Travel,” 156.
49 Ibid., 6-7.
50 “Bob Hope and I love to fly!” Time, 1949, http://library.duke.edu/digitalcollections/adaccess_T2191/. See Figure11.
51 Ibid.
life domesticity in the 1940s. The job of stewardess allowed young, single women perhaps more independence and mobility than their female friends at home were permitted. As one stewardess said, “The airlines give a girl a chance to get around.” A 1953 United advertisement showing a stewardess holding a poster with the rates of first class fares from New York to other major American cities emphasized the opportunities for domestic travel available to women.

Figure 11.

Figure 12.

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52 May, *Homeward Bound*, 34, 57.

Figure 13.

What does a man like for dinner 20,000 feet up?

Food alone doesn't make the flight, but it is one of the reasons TWA shines in air travelers' eyes. Thoughtfully planned meals—perfectly cooked and graciously served with TWA's compliments—add to the friendly feeling of being at home in the air, which is the hallmark of TWA travel in the U.S. and overseas.

Where in the world do you want to go? For information and reservations, see your travel agent or call TWA.

ACROSS THE U.S. AND OVERSEAS... YOU CAN DEPEND ON TWA
employed in the industry.\textsuperscript{54} This campaign resonated with those advertisements appealing to single working women.

The stewardess position afforded young women autonomy, but the duties of the job essentially elevated traditional expectations for women as domestic workers to a cruising altitude, as evidenced by one advertisement’s bold-lettered query “What does a man like for dinner 20,000 feet up?”\textsuperscript{55} This 1951 TWA ad in \textit{The New Yorker} showed a tray full of food grasped by the red-lacquered fingers of an airline stewardess; the iconography reinforced the custom that women should be the preparers and servers of food.\textsuperscript{56} To a potential customer, the advertisement reflected a truth of the industry that meal service was an integral part of a stewardess’ duties: “the stewardesses’s main task, on the new four-engine planes as much as on the old DC-3s was serving meals.”\textsuperscript{57} The focus on food service was another way for airline companies to distinguish themselves from competitors, as United did by advertising that its DC-6 carried 400 pounds of food and that stewardesses served 944 different meals a year.\textsuperscript{58} The fact that stewardesses were surrounded by food on a plane was literalized in TWA’s 1953 ad featuring a tray-holding stewardess encircled by the images of turkey, shrimp, fruits, and vegetables.\textsuperscript{59} These advertisements, which reinforced that women aloft should be serving food, paralleled the allocation

\textsuperscript{54} “Compare Travel Costs,” \textit{New York Herald Tribune}, 1953, http://library.duke.edu/digitalcollections/adaccess_T2227/. See Figure 12.

\textsuperscript{55} Harker, “What does a man like for dinner 20,000 feet up?,” \textit{The New Yorker}, 1951, http://library.duke.edu/digitalcollections/adaccess_T2061/. See Figure 13.

\textsuperscript{56} Ibid.

\textsuperscript{57} Solberg, \textit{Conquest of the Skies}, 336.

\textsuperscript{58} Ibid., 336, 377.

\textsuperscript{59} “Best bill of fare in the air,” \textit{The New Yorker}, 1953, http://library.duke.edu/digitalcollections/adaccess_T2096/. See Figure 14.
of civilian women to kitchens in the traditional cultural norms that flourished in early 1950s America.

The thousands of women employed during World War II were met with admiration and respect, but society “affirmed the primacy of domesticity for women” in post-war culture.\(^\text{60}\) The airline industry sold tickets and secured women to work as stewardesses based on contemporary expectations. Advertisements consistently depicted women, both as passengers and employees, as beautiful, competent, and domestic, attributes expected of housewives and working women alike. In the late 1940s and early 1950s, airline advertisements succeeded in bringing women aloft, but the focus on meals and childcare proved that altitude alone could not liberate women from the domestic sphere.

\(^{60}\) May, *Homeward Bound*, 53.
Best bill of fare in the air

Go ahead, feast your eyes... and wish you were on a TWA Skyliner! Food like this makes flying with TWA a different, delightful interlude and one of the high spots of your Constellation flight. It’s fun being TWA’s guest because there’s no standing in line, no tipping and no check. You stay right in your comfortable seat, and a whole wonderful meal like this is brought to you with TWA’s compliments, on all regular fare flights at mealtime.

Fly the finest... FLY TWA

Map of the world: To new west to get the Atlantic and approaches, and TWA or see your travel agent.

Figure 14.