

Disaster in San Francisco:
The Literature on the 1906 San Francisco Earthquake and Fires

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Abstract

The earthquake struck San Francisco on April 18, 1906, at 5:12 AM, shaking San Francisco for more than a minute before it was followed by three days of continuous fires and tremors. By April 21, 1906, the calamity of the earthquake finally arrived for the residents of San Francisco, though this would be the beginning of many struggles the city will face. The earthquake and fires left San Francisco in rubble, leaving many people homeless. The San Francisco earthquake and fires of 1906 would be the greatest catastrophe in San Francisco's history. The literature on the disaster is plentiful with a variety of topics that ranges from topics such as environmental, architecture, political, military, and racial conflicts and resolutions. Substantial research has been done on the earthquake through journalist, scientist, and historians. Concerning the Earthquake and its history, contemporary authors like Frank Atkins, Charles Derleth, and Charles Morris have been able to describe in detail what happened during the earthquakes through eyewitness and personal accounts. Later writers such as William Bronson, Gordon Thomas and Max Witts, Gladys Hansen and Emmet Condon discover and debunk the myths that followed the earthquake, while authors like Simon Winchester, Philip L. Fradkin and Joanna L. Dyl continue to dwell on the 1906 disaster by analyzing the catastrophic social consequences of one of the greatest disasters in American history.

On April 18, 1906, at 5:12 AM on the coastal region of California, the residents of San Francisco were awakened by an earthquake reached a magnitude of 8.3 on the Richter's magnitude scale, lasting for over a minute. The violent earthquake that would ruin the thriving city would also be felt from Oregon to Los Angeles, all the way to Nevada. The earthquake left San Francisco in ruins; thousands of homes were destroyed leaving 225,000 people homeless with a recorded casualty of 478 deaths in the San Francisco Bay Area. The earthquake was only the beginning of the difficult days that followed in San Francisco. As the earthquake broke the main water systems of the city, it left San Francisco susceptible to thirty fires that were caused by the lack of water resources and firefighters trying to drown the flames with black dust and dynamite, but the usages of black dust and dynamite. The 1906 disaster is known as one of the worst natural disasters in American history, due to its severe damages that has done to San Francisco with an estimated \$500 million cost in damages. dynamic. The 1906 disaster is titled as one of the worst natural disasters in American history, in which many historians, journalist, scientist, and authors researched and try to find explanations in order to prevent such an event happening again in the future.

Most of the literature on the 1906 disaster falls under three categories: eyewitness reporting, uncovering the truth from the disaster, and analyzing the cause and consequences San Francisco faced. The works on the 1906 San Francisco Earthquake and fires span from the 1900s-2010s, though most of the works fall within the late-1950s to mid-2000s. The studies that extensively research and analyze the causes and consequences of the 1906 disaster began in the late 1950s and 1960s with the introduction of social history and evolutionary discoveries in environmental sciences.¹ These works are more grounded in research than their predecessors due

¹ See Marie Bolton, "Recovery for Whom? Social Conflict after the San Francisco Earthquake and Fire, 1906-1915" (PhD diss., University of California, 1997). and Andrea Davies Henderson, "Reconstructing Home:

to availability of documents and these literatures are commonly cited among contemporary authors from 1970s and beyond. Most of the authors of monographs fall into the categories of journalist, geologists, and historians.

The first monographs of the 1906 disaster were published immediately as eyewitness reports and personal accounts. Notable authors of this time are Charles Morris, James B. Stetson, and Frank W. Aitken, and Edward Hilton. Charles Morris and James B. Stetson are journalist that capture the emotions of the residents of San Francisco, they provide insight of the affects the earthquake left citizens, but unable to provide further in-depth explanation besides reporting emotionally-driven stories to the general American audience.² In contrast, Frank W. Aitken and Edward Hilton's *A History of the Earthquake and Fire in San Francisco* (1907) was an outlier in comparison to these two journalists.³ Aitken's monograph provided information on the history of the earthquake and fires, he does so by reporting the engineering and foundations of the buildings in San Francisco and reporting the investment and insurance, publishing the monograph almost a year after the 1906 disaster.⁴ His historical analysis of the 1906 disaster would be view much later by future authors such as William Bronson, Gordon Thomas and Max Morgan Witts, and Gladys Hansen. The monographs on the 1906 disaster was prominent from

Gender, Disaster Relief, and Social Life After the San Francisco Earthquake and Fire, 1906–1915." (PhD diss., Stanford University, 2005). For more information on the social conflicts that arose after the earthquakes and fire.

² Charles Morris, *The San Francisco Calamity by the Earthquake*. (Mineola, NY: Dover Publications, 1906).

James B. Stetson, *San Francisco During the Eventful Days of April 1906*. (San Francisco: the Murdock Press, 1906).

³ Regarding Frank W. Aitken's background, it was difficult to locate his occupation after many tedious hours of research. For the sake of the literature review, he will be assumed as a historian based on his work as a historical analysis of the 1906 disaster.

⁴ Frank Aitkin, and Edward Hilton, *A History of the Disaster and Fire in San Francisco*. (San Francisco: the Edward Hilton Co., 1906).

1906-1907, but it did not take long for the interest of publication on the 1906 disaster to be placed the (almost) forgotten corner of book shelves with very little literature written until the late 1950s with William Bronson's *The Earth Shook and the Sky Burn* (1959).⁵

In the 1950s-1960s, the Plate Tectonics Theory became a widely accepted theory by scientist as they researched further seismology and the effects nuclear bombs had on the earth's surface.⁶ The Plate tectonic theory became a major discovery in scientific history as it explained the mechanism of the motions and causes of earthquakes on Earth. Side by side in a historical standpoint, this was also an era where the emergence of social history is starting to become a field in historical research. Around this time period, William Bronson published *The Earth Shook and the Sky Burned* (1959). Unlike his predecessor, Bronson's literature focused was beyond the human details, myths, and emotional turmoil that was felt from the earthquake and fires. In his "Author's Note," Bronson mentioned how he had family members who witnessed the disaster, but their memories were hazy and concluded that he could not rely on their memories to write his literature.⁷ His argument was to deconstruct the myths and faulty memories that followed the disaster, proving that there was more to earthquake and fires. His evidence was based around the rummaging of the background material and documentation of San Francisco after the earthquake occurred, as well as providing never-before-seen photos of the aftermath. Bronson's literature was the beginning to uncovering the information that were abandoned from such a disastrous earthquake, but the faulty memories of old-timey survivors

⁵ William Bronson, *The Earth Shook, the Sky Burned: A Moving Record of America's Great Earthquake and Fire: San Francisco, April 18, 1906*. (Garden City, NY: Doubleday, 1959).

⁶ The Plate Tectonics Theory's groundwork began with Alfred Wegner's Theory of Continent Drift in 1912. By the 1960s, scientist examine seismometers to monitor nuclear testing and discovered that earthquakes and volcanoes lined up with the Earth's belts, which were later defined as the edges of plate tectonics.

⁷ Bronson, *The Earth Shook, the Sky Burned*, 9.

meant that the research behind the disaster should be looked at a deeper and more analytical research.

Through William Bronson's monograph, the 1970s and 1980s emerged with new information on the earthquake that focuses on uncovering information and debunked the many legends and tall tales the city had to tell. As time progress, the 1970s began the golden age of social history. Around this timeframe, Gordon Thomas and Max Morgan Witt's published *The San Francisco Earthquakes* (1971).⁸ Thomas is a British investigative journalist and Witt is a British director and producer. Their thesis was to demolish the myths and stories that surrounded the 1906 disaster. However, the evidence they provided did very little to validate their assertions. It is a great monograph for the popular audience who are interested in the disaster as it provides various anecdote of people like Italian opera singer, Enrico Caruso. Though it is supported by an insightful bibliography and as well as fresh information that further the interest of authors. Thomas and Witt's monograph may not be the best monograph to do research based on the author's assurance that their sources are reliable, but it further proves the focus on the research of the 1906 disaster with an open mind as the literature on the event widens. Even then, the literature on the 1906 disaster continued to be published from authors whose interest began to focus on a more social analysis than a narrative story of the catastrophic event.

In 1989, California was reunited again by an old friend: an earthquake. The 1989 Loma Prieta earthquake was the first earthquake felt in the San Andres fault line since the 1906 San Francisco earthquake. Subsequently, Gladys Hansen and Emmet Condon published *Denial in Disaster: The Untold Story and Unpublished Photographs of the San Francisco Earthquake and*

⁸ Gordon Thomas and Max Morgan Witts, *The San Francisco Earthquake*. (New York: Stein and Day, 1971).

Fire of 1906 (1989), although they were working on the monograph since 1965.⁹ Both Hansen and Condon are San Franciscan natives. Hansen is famously known to be San Francisco's archivist and for publishing other works that were centered around the 1906 disaster, while Condon was former Fire Chief in San Francisco.¹⁰ Hansen and Condon's monograph has provided new and insightful information the disaster. As mentioned earlier, the recorded death toll that was claimed in 1906 was that there were 498 casualties. Hansen was able to confirm that a total of 3,000 deaths occurred.¹¹ Their discovery changed the way authors viewed and analyzed the literature as there was so much more to discover especially since there was almost an 83-year differences of information that changed the history of the disaster.¹² Their successors on the literature will use Hansen and Condon's monograph as a starting point to a cause and consequences of the 1906 disaster. The authors would later become an influential in the historiography of the San Francisco's earthquakes and fires. This new information created a wave of new monographs that focuses on the social analysis among authors that begin to steer away from the complexities of engineering, insurance, and death toll but focuses on the social aftermath that the disaster created. Though, there is still yet to be an academic historical account of the 1906 catastrophe to be published. Many writers and scholars are beginning to examine the

⁹ Gladys Hansen and Emmet Condon, *Denial of Disaster: The Untold Story and Photographs of the San Francisco Earthquake and Fire of 1906*. (San Francisco: Cameron, 1989).

¹⁰ Other notable works of Gladys Hansen are *1906 San Francisco Earthquake and Earthquake, Fire*. (Mount Pleasant, SC: Arcadia Publishing, 2013) and *Epidemic: Personal Accounts of the 1906 Disaster*. (San Francisco: Untreed Reads Publishing, 2014).

¹¹ Hansen and Condon, *Denial of Disaster*, 153.

¹² In her work, Hansen followed a guideline that accounted for indirect causality (Psychological trauma, injuries such as lacerations, sickness and disease related to the enforcement of law) by following these guidelines Hansen's research on the casualty totaled to 3,000 by the time of her publication.

catastrophe through post-disaster urbanization and popular conceptions of catastrophes that occur from this point on.

The centennial of the 1906 San Francisco earthquakes and fire was marked on April 28, 2006. There was a major spark of interest that created a series of monographs that were published in honor of the centennial of 1906 disaster. Since headlines of the centennial would interest the American public this created an influx of books on the topic that were published from 2005-2006. This influenced authors like Philip L. Fradkin's *The Great Earthquake and Firestorms of 1906* (2005) and Simon Winchester's *A Crack in the Edge of the World: America and the Great California Earthquake of 1906* (2006).¹³ Both authors focus in on a social perspective on the disaster and reconstruction of San Francisco, but their argument focuses on two very different angles. Philip L. Fradkin is an environmental historian and journalist. Fradkin's book further supports and expands on a political angle of the earthquake, blaming officials for the lack of information and reassurance on the residents both before and after the earthquake who has written various book on California's environmental history. In *The Great Earthquake and Firestorms of 1906*, Fradkin's focus is on the effect on the people from the aftermath of the earthquake, rather than the destruction of the earthquake. As more monographs are published on the San Francisco disaster, the perspective of the earthquake changes from an emotional turmoil to a disaster that was bound to happen eventually based on the previous records that historians are finding.

¹³ Philip L. Fradkin, *The Great Earthquake and Firestorms of 1906*. (Berkeley: University of California Press, 2005).

Simon Winchester, *A Crack in the Edge of the World: America and the Great California Earthquake of 1906*. (New York: HarperCollins Publishers, 2006).

Simon Winchester is a journalist and broadcaster with a degree in Geology from Oxford in the 1960s. With a background in geology, Winchester was entering a field where the Theory of Plate Tectonics has been confirmed by scientist in 1968. Even though his monograph features many scientific explanations about the history of earthquakes, his focus is on social aspect of 1906 disaster. *A Crack in the Edge of the World* says that the destruction of City Hall and the destruction of public records led to a major rise in Chinese immigration in San Francisco. He also brings in a topic that was not heavily mentioned by previous authors like Hansen, Emmett, and Bronson. Which was a religious angle: it discussed the rise of the nascent Pentecostal movement, in which the catastrophic event of the earthquake only further pushed the idea that the disaster was in fact, a sign from God.

As of 2017, the research on the 1906 San Francisco earthquake and fires is continuing and recollected among many authors. The latest monograph is Joanna L. Dyl's *Seismic City: An Environmental History of San Francisco's 1906 Earthquake* (2017).¹⁴ Dyl is an environmental historian and author, receiving her Ph.D. in environmental history. With a background in environmental science, Dyl understands the environmental impact that the earthquake had on San Francisco, though her book does not only focus on the destruction of San Francisco. Her main argument is that the earthquake left San Francisco in "disaster capitalism."¹⁵ The recent publication of this book has tied together the monographs of the 1906 catastrophe that were previously written. It follows the footsteps of the authors like Winchester and Fradkin. Joanna L. Dyl's book focuses on the idea that San Francisco's earthquake and fires were not only a natural disaster, but a creation of the social and cultural influences that hurt San Francisco more by

¹⁴ Joanna L. Dyl, *Seismic City: An Environmental History of San Francisco's 1906 Earthquake*. (Seattle: University of Washington Press, 2017).

¹⁵ Dyl, *Seismic City*, 5.

creating a social fault line. Her book further defends Fradkin and Hansen's position on how San Francisco downplayed the earthquake, asking the question of whether the earthquake's disaster was really a natural disaster or was this a disaster that was caused by the city's own ignorance.

The literature on the 1906 San Francisco Earthquakes and Fires is plentiful and focuses on a variety of topics that range from environmental sciences to religious studies. Though its beginning was mainly based on the recollection and memories of those who faced three days of fires and foreshocks, as the literature on the disaster progress so does its information. Later analysis focuses more beyond the social creation and consequences of the aftermath of the earthquake, narrowing down to certain groups of people like Chinese immigrant. The monographs on the 1906 San Francisco earthquakes and fires may never leave the bookshelves as they continue and reprise the questions that remain unanswered that are wanting to be solved because of the amount of destruction and questionable documentation that continue to intrigue the general audience, writers, and scholars. As more research and information becomes available and discovered on the disaster, the literature of the 1906 San Francisco's earthquake and fires continues to evolve and reform the narrative story on such a disastrous day in American history.

"I hereby declare upon my word of honor that I have neither given nor received unauthorized help on this work."

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The earthquake and fires left San Francisco's City Hall (below) in ruins and residences slumping or collapsed in heaps. (Library of Congress). At 5:12 a.m., Wednesday, April 18, 1906, San Franciscans were rudely awakened by a sharp jolt that lasted about 45 seconds. This was a foreshock, an overture to a terrible symphony of destruction. San Franciscans displaced by the 1906 disaster queue up to receive meat rations. Homeless survivors pose in one of the many shanty towns they erected amid the ruins, providing rudimentary shelter. (Library of Congress). The San Francisco Bay area was home to several military bases, including the historic Presidio and Mare Island. Despite a quick response from San Francisco's large military population, the city was devastated. The earthquake and fires killed an estimated 3,000 people and left half of the city's 400,000 residents homeless. Aid poured in from around the country and the world, but those who survived faced weeks of difficulty and hardship. The San Francisco earthquake is considered one of the worst natural disasters in U.S. history. Congress responded to the disaster in several ways. The House and the Senate Appropriations Committees enacted emergency appropriations for the city to pay for food, water, tents, blankets, and medical supplies in the weeks following the earthquake and fire.