The Archaeology of Absence: How Natural Disasters Leave Gaps and Cause Rebirths in Our Urban Landscapes

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Abstract

The 1989 Loma Prieta Earthquake was an event that impacted the San Francisco Bay Area. With a magnitude of 6.9, accounting for the loss of 63 lives and extreme property damage, it was an event that affected the population through the severe differences in the area after the natural disaster, and especially affected San Francisco's Marina District, due to the fact that the buildings there were built on loose soil. The goal of this research is to study the Marina District through historical records, and firsthand accounts of the earthquake, not by just studying material culture left behind from the disaster, but the buildings and structures that were destroyed in the earthquake and the impact those losses had on the community. The findings will not only be summarized in this paper, but also in a poem written about the event.

Keywords: Marina District, Earthquake, Historical Archaeology, Loma Prieta, San Francisco

Introduction

At 5:04 PM on October 17, 1989, an 6.9 magnitude earthquake shook along the San Andreas fault, affecting the East Bay Area and the city of San Francisco. Though much of the area was damaged, with an injury count of 3,757 and death toll of 63, the majority of damage was done in San Francisco's Marina District located on the northern coast of the city (Augustyn et al., 2009).

While damage in earthquakes are not uncommon, with most imagining buildings tumbling and toppling to the ground, the damage in the Marina District is quite unique. The Marina District was the site of the Panama-Pacific International Exposition, a celebration of the creation of the Panama Canal. Because of this event, a new section of the city was created on top of mud and soil taken from the bottom of the Bay. This expansion along the waterfront stayed after the celebration, with residences and buildings built on the surface, designed with the current earthquake building regulations of the time, which were mostly influenced by the 1906 earthquake. Though regulations were followed, many buildings were not built on a proper foundation, as the idea of a proper earthquake safe foundation to prevent what happened was not thought of yet, and as a result, many buildings were damaged or destroyed. Rather than toppling over though, the buildings sank into the ground and fill they were built on top of, displacing residents and changing the area in impactful ways.

This study will focus on the impact of the destruction of the buildings in the Marina, and how it shaped the community as it is today. It will focus not only on the absence of certain structures or buildings, but the memories of Marina residents and workers who lived through the event and its consequences.

Method

To come to the conclusions I found, I used a mix of historical records, online resources, and firsthand accounts. I started by going online and learning as much as possible about the earthquake. At first glance, the majority of resources found were about San Francisco as a whole, but after switching my focus from just the keywords *Marina History,* and looking into facts about the community. I researched the history of local

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restaurants, landmarks, and events to find out more about not just the history described in a single article, but put together through a tapestry of woven events. Learning more about the community, along with exploring the Marina and its most affected sites helped me later understand and find archived newspaper articles from the event along with public records/maps, which I further analyzed with mapping programs such as QGIS (*Maps*, 2016). One of the most important ways I was able to piece together the story of the Marina District during and after the earthquake was interviewing residents of the community and those who worked in the area during. These interviews added a much-needed human touch to the research, because to piece together the story of the community, I had to get the community's perspective.

When I walked the Marina, my goal was to find people to interview, as well as take notice of the buildings that seemed overly out of place. Many of the original buildings built in the neighborhood and specifically along Bay Street are in the Italian style, so when there is a building amongst the others that is suddenly modern, it can be inferred that the current building is one that replaced a building damaged in the earthquake. Through walking the Marina, I found that three buildings on Marina Boulevard were new, as well as one on the corner of Fillmore and Bay Street (I will not state the addresses as I have not had permission from the owners of the houses). I walked from Fisherman's Wharf to Yacht Rd and back twice, resulting in four walking surveys of the coast.

While interviewing, I learned a lot about where each person was during the earthquake, along with their occupations and daily occurrences. With this information, I was able to add further context to the public records and pictures I had collected during my research period. I was able to find seven participants by visiting the Marina District as well as calling businesses in the area that were operating before the earthquake, and asking if any staff members or anyone in relation to the staff members had lived or worked in the area before, during, and after the earthquake. Through this method, I made contact with:

- Diane Cooper: Museum Technician at San Francisco Maritime National Historical Park, located in the Marina District
- Bill Dito: Employee of Books Inc. in San Francisco’s Marina District, longtime Marina Resident
- Richard Everett: San Francisco Resident
- Susan Garfield: Employed by the National Park Service to inspect Building E at Fort Mason
- Paul Hansbury: San Francisco Resident
- Carol Krop: Engineer who assisted with the recovery efforts in the Marina District
- Alma Robinson: Executive Director of California Lawyers for the Arts, a non-profit organization which is based in the Marina District.

To find consistent patterns in the oral history, I asked each interviewee the same three questions.

- How was your life/daily routine before the earthquake versus directly after? How were things changed in the years after the earthquake?
- How did the community change from before the earthquake compared to directly after and in the years after as well?
- Do you remember an establishment or building that came down during the earthquake? How did that impact the community or your daily life?

These questions were typically asked after the interviewee introduced themselves and gave their full story and perspective of the day of the earthquake. The non-question portions of the interview was helpful in understanding the culture and setting of the Marina, as understanding the participant on a deeper level would help with understanding how severely the event impacted them, and in turn, a Marina community member, though it should be noted that those who corresponded with information through email gave their story only,

though these backgrounds gave more than sufficient details to understand the community of the Marina District at the time of the earthquake.

As for the results of the research I initially believed that my QGIS renderings were not fruitful, though I later realized that they answered one of my main questions of change in the community. Physically, the streets of the community did not change, but after coming to this conclusion I was able to understand that this was another detail that supports the main conclusion I came to, that the absence in the Marina was not solely within the buildings and architecture, but within many of the residents of the area.

After analyzing the historical data, specifically newspaper articles and pictures, mainly from the *SF Examiner*, I learned that the majority of Marina residents were middle to upper middle class and white (Seligman, 1989, p. 26). Those residents were both homeowners and renters, and they were especially affected by the destruction of buildings, as many of those buildings were housing units (apartments, connected/unconnected houses) (*San Francisco*, 1989, p. 34). Housing units were not the only affected buildings in the Marina, as businesses were shut down temporarily and permanently due to damage and the danger of the earthquake affected streets in the weeks after the event ("Marina," 1989, p. 23). Residents and business owners had to decide whether they should sell their properties and move, or if they were equipped to deal with the financial fallout of the event and stay. It is important to note that in my historical archive search, it was stated many times that the buildings were destroyed due to liquefaction, which is when loose mud/soil is shaken, making it weaker (*Seismic Hazards*, n.d.). The history of the Marina was also often described, noting that the district was built out of mud and silt from the bottom of the bay so it could host the Panama-Pacific International Exposition (1915), the celebration of the Panama Canal, in a new bayside setting. Because of the district's weak foundations, the destroyed buildings in the Marina did not topple over, but sank into the ground, and mud severely leaked out of the cracks. As a result of the earthquake, the double decker bridge lining the coast and vastly obscuring the view of the bay came down and was not rebuilt. Many of the original structures, often built in an Italian style by workers who were majority Italian-American, were also affected and subsequently destroyed.

Going beyond my prepared questions within my interviews turned out to be one of the most useful aspects to my investigation. The majority of participants answered that their routine did not change in an extreme way, save for making the decision to have more of a focus on earthquake/disaster preparedness, and making sure that the houses they resided in after the event had proper foundations. As for a major change in the community, there weren’t many obvious answers, but many of the participants stated that the rent went down for a short period, but made a steep increase after, because the destruction of the double decker freeway and the beautiful bay view that was restored pushed up the value of real estate in the area. As a result, friends and neighbors of my participants were pushed out of the neighborhood, replaced by residents and businesses who could afford the rent. Though the majority of my participants could not recall any major buildings or businesses that disappeared after the earthquake, as many legacy businesses could afford to stay open, Alma Robinson directed me to the corner of Fillmore and Bay St., as the building that stood there before the event came down was replaced. After connecting this information to my archive research, I was able to find a photo of the ruins of the original building, and compared it to the building that I visited, and the original Italian style building was replaced by a more modern building, a theme that was present in my walking survey of the Marina (*USA. San Francisco*, 1989).

Discussion

In my analysis, I realized that the most common theme between the interviews, archives, and even my walking survey was not the loss of community through the destruction of important buildings and establishments, as many legacy businesses survived the financial consequences, but the loss of community due to the movement of people.

Throughout the research period, the displacement of residents and the loss of smaller companies in the area was very apparent. When buildings came down, especially units housing many people, those people were displaced. Though the area was wealthy, having to recover from a serious natural disaster and the subsequent increase in rent was not something that many people planned on experiencing, and definitely did not save money in preparation for. Nevertheless, there is also still the possibility of property owners selling their land even if they could afford to stay, as the restored view of the bay made the real estate more valuable. While on my first walking survey as I was looking for interview participants, I noticed that many of the people I stopped to inquire informed me that they moved to the area after the event, and many of the older people who spoke to me on my survey informed me that they moved to the area within a few years after the event. These encounters were brief, but they helped paint a picture of the impact of the earthquake after I learned more about the earthquake's impact on the local real estate.

In the years after Loma Prieta, San Francisco's Marina District is still thriving, and many historic businesses and buildings have survived the destruction, but there was absence within the destruction, or to be more specific, there was absence as a result of the destruction (*Marina Neighborhood*, n.d.). When a community shifts in population in the way that the Marina did, more changing voices are added and removed from a local culture. If I were to change anything about my research, I would look more into public documents describing the buildings that were there in the past versus now, as a limitation I ran into was that the agencies I corresponded with did not have that information available for public use, but with sufficient time I would have likely been able to find more resources pertaining to the subject. The question of the ethnic makeup of the district before and a few years after the event came up at the end of my research period, so in further research I will likely explore this topic.

In researching the impact of the 1989 Loma Prieta Earthquake, it is important to consider the absence of people through who had to move and who chose to stay. Through this short research project, it was shown that through changing buildings and environments, one of the most important aspects of a change in community is through its change in population, whether it is through movement, loss, or a combination of both.

Poem

Sunken Duplex: What the Waves Washed Up

I wonder if the waves shook the Marina
Took the Marina of Flourina away

Shook off the street, shaking hands quake away
Take away a week of what we know

And my friends remember what they know
But all we can think of is what was before

Chandeliers hung without shaking before
But his car now holds up the broken wall

And the water that hides behind the wall
Can now be seen without smog and bridge

And it feels like they've broken a bridge
Because now my neighbors are moving away

Now soil bubbles under my feet away
I wonder if the waves shook the marina

And in some ways it seems my beloved Beach stayed the same
And I can't seem to measure what's different
Unless Bobby and Sally and Joe went astray
And now I see who flows must consider that

They wonder if their waves shook the Marina
And watch how new houses fill different

The faces they now see are different
Quake washing up new noses to shore

Like seaglass that washes up on the shore
I've seen who's stayed and been softly weathered

The faces that live past might stay weathered
Or maybe I'm watching new people

I walked the shore looking for shaking people
But all I found was ocean stood still

You could read on new faces who stood still
They moved in new houses made from Bay and silt

As new water flows through sand and silt
They wonder if their waves shook the Marina

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