

Earthquake Recovery and Historic Buildings: Investigating the Conflicts

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As a pilot study, this paper investigates how conflicts developed during the earthquake recovery of a historic building in San Francisco. The study shows that such a building can be a contested space in earthquake recovery, as different groups push for different values. The subsequent conflict develops in phases, with roots based in the people and the context of the recovery more than in the building itself. More research is needed to investigate the process of recovery as it relates to historic buildings.

Background

Recovery after an earthquake is challenging for any community as it endeavors to repair the damages. It is a period that witnesses struggles between different groups with different priorities. As such, the recovery period is often tinged with conflicts (Berke/Beatley 1997: 27–31; Geipel 1982: 16, 171; 1991: 91; Lindell/ Prater 2003: 11–12).

Disasters have physical, social, psychological, sociodemographic, socioeconomic, and political impacts, in addition to many indirect impacts (cf. Lindell/ Prater 2003). As a community focuses on returning to routine life activities, historic buildings may not be valued and they may be unnecessarily demolished, leading to the irreversible loss of many important cultural properties (Craig 1998: 96; Feilden 1987: 37; Kariotis 1998: 59).

Literature divides the post-disaster period into four main stages: 1) Emergency (response) period; 2) Restoration (short-term recovery) period; 3) Reconstruction I (long-term recovery) period; and 4) Reconstruction II (com-

memorative period) (Berke/Beatley 1997: 36; Haas et al. 1977: 279–281). This paper measures recovery as the time needed to repair a building after an earthquake.

Many factors affect the decisions made during the recovery period—the amount of damage, costs and benefits, resources available, time pressures, preservation awareness in the community, and political attitudes, which can have an important influence—especially after wars (Geva/Al-Nammari 2002; Haas et. al. 1978: 263–264). Such decisions are an outcome of social processes that have not yet been fully investigated. The dynamics of such processes are important, as they affect the decisions as well as the time and cost involved in the recovery.

In this paper, conflict follows the definition provided by Anstey (1999: 6) as a struggle over resources aimed at controlling the result. It is part of any process of decision making that affects a community or a resource, and is based on the beliefs of groups, which can be true or false (Anstey 1999: 5–13; Warner 2001: 14–16). Therefore, since resources are limited in post-disaster situations, different groups will have different stands on the best use of such resources, thus creating conflict (Bolin/Stanford 1990: 107; Geipel 1982: 171; Phillips/Ephraim 1992: 6–9).

Preservation¹ is defined by the International Committee of Monuments and Sites (Australia ICOMOS 1999: article 1.4) as a process of looking after a place to retain its cultural significance. Preservation is thus an act of management, and international charters have stressed that cultural resources should be preserved so that their tangible and intangible values are maintained and passed on to future generations (cf. ICOMOS 1982; 1987; 1999).

Historic preservation after disasters has seldom been investigated. Several studies have shown that historic buildings face special challenges (cf. Eadie 1991; Jones 1986; Look/Spennemann 2000, 2001; Merritt 1990; Nelson 1991; Spennemann/Look 1998). The old construction methods, the significance of the buildings' fabric, and the meaning they hold put them in a separate category from nonhistoric buildings, which is a situation that sometimes leads to conflicts. Noted issues are damage assessments, retrofit, and maintaining the integrity of the historic fabric.² Also, the specific requirements of mitigation and rehabilitation pose challenges that encourage owners to demolish and build anew (Craig 1998: 18; Feilden 1987: 43–53; Kariotis 1998: 55–59; Look 1997: 1–7; Spangle Associates 1999: 22–26). While several studies have indicated that historic buildings face conflicts in recovery, more studies are needed to investigate how such conflicts happen. Such investigations are important,

1 ICOMOS uses the term “Conservation,” not “Preservation,” but to maintain consistency the term Preservation will be used, as it is the term used in the US.

2 Integrity of fabric is a term used by preservationists to identify a state in which the original historic building materials and systems remain intact.

as conflicts cause delays and time is an important factor in successful disaster recovery (Haas et al. 1977: 21; Wu/Lindell 2004: 76–77).

Demolitions seem to be the most cited source of conflict for historic buildings. After an earthquake, there is intense pressure on public officials for rapid demolitions because damaged buildings seem to pose a safety threat (Schwab et al. 1998: 295). In addition, damage to some buildings leads to the assumption that the historic fabric is no longer of historic value, which also results in demolitions (Spennemann/Look 1998: 3). Demolitions are also sometimes considered by the owners of historic structures due to the regulations and building codes that encourage such actions indirectly and make them more economically rewarding (Spangle Associates 1999: 23–27).

Therefore, the objective of this paper is to investigate the conflicts that face historic buildings after earthquakes. It is a pilot study to identify how conflicts develop. It is not the purpose of this paper, however, to investigate all challenges facing historic buildings in recovery. Instead, the study focuses on the roots of the conflict and how these conflicts ensue. This is accomplished by studying the recovery process of a publicly-owned building in San Francisco that was, at one point, scheduled for demolition.

Methods

As a pilot study that is part of a larger investigation of the recovery of historic buildings after earthquakes, this investigation used a case-study approach and focused on a building in San Francisco after the 1989 Loma Prieta earthquake. San Francisco was chosen because it has been through several earthquakes in its history. As a result, its codes and city processes have familiarity with post-earthquake recovery processes. Also, its most recent earthquake occurred far enough in the past to enable researchers to reflect on the effects of the long-term recovery and its issues. The chosen building, the Williams Building, faced more recovery delays than similar buildings in San Francisco. It took more than eight years to attain funding, while 75 percent of publicly-owned historic buildings needed four to five years after that earthquake to get funding (Al-Nammari 2005).

Two sources of data were used: 1) documents related to the recovery of the Williams Building; and 2) interviews with ten professionals involved in the recovery of that building and other historic buildings. Each source complemented the information attained from the other and helped develop a better understanding of the case and its context. The documents were obtained from the State Historic Preservation Officer (SHPO) in California.³ Not all of the

3 Also known as the Office of Historic Preservation.

documents were found, but the documents available provided an outline of what occurred until most of the funding issues were resolved. The analysis focused on correspondences and agreements, as they show the concerns of the different parties and related decisions. The data were complemented by information attained through semi-structured interviews administered on the phone with professionals who were either involved in this project or with other publicly-owned historic buildings. The objective of the interviews was to complement the information attained from the documents and to relate the recovery of that building to recovery of historic buildings in general. The questions covered the main issues that were faced during the recovery. Probes were used to identify the sources of the conflicts.

Two main kinds of matrixes were used to analyze the data. The first matrix was time ordered, and it reflected the developments taking place across time, with subheadings identifying the different variables that were grouped as the documents were studied. The interviews were analyzed using a matrix where sources of conflict were grouped based on an interpretive analysis of the answers (Miles and Huberman 1994: 127–129).

Case study: The Williams Building

Built in 1907, the Williams Building is an eight-story building with a 50,000 square-foot area, eligible for listing on the National Register of Historic Buildings. It was constructed of a steel frame with brick aggregate concrete floor slabs and masonry cladding, with distinctive brickwork on the east and south facades. The building occupies an important corner at the intersection of two streets in downtown San Francisco. The San Francisco Redevelopment Agency, a public agency, owns the building, which lies in an area that was subject to a redevelopment project.

The earthquake of 1989 created several cracks in the walls, beams, and columns, leading to a red-tag status for the building. As a public agency, the owner applied for recovery funding from the Federal Emergency Management Agency (FEMA). Since the building is historic, it was subject to a Section 106⁴ review.

According to the available documents, the project started with FEMA in October 1989, and ended in April 2001. The total funding given to the build-

4 Section 106 is part of the National Historic Preservation Act of 1966, which requires federal agencies to consider the effects of their undertakings on historic properties. It provides the Advisory Council on Historic Preservation, an independent federal agency in collaboration with State Historic Preservation Officer (SHPO), a chance to comment on the project in an attempt to reduce negative effects on historic properties. It also requires public participation in the review.

ing was \$6,876,692. Since few historic buildings took that long to attain funding from FEMA, investigating this building is useful in understanding the possible sources of complications.

This paper investigates the process of recovery as it relates to decisions about how to repair the building, but not the construction process itself. As such, the study ends by 2001, which represents the end of the legal relationship with the funding agency (FEMA) and the major decision-making phases. Construction work was still taking place on the site when it was visited in April 2005.

The Williams Building's project went through the following stages:

1. *1989-1993: Project initiation.* This stage was the most critical, as decisions had to be made on what to do with the building; these decisions led to the conflict. Once the owner applied for funding from FEMA, the Section 106 process was triggered and several issues were raised before the funding could be provided:
 - To demolish or to repair. The owner felt that demolition was the best solution. The building was red-tagged, but that does not necessarily mean that it was beyond repair. Demolition could have been funded by FEMA, had it not been a historic building. Section 106 review brought the decision-making process to the SHPO, who did not concur with the demolition. It also allowed for interested stakeholders to be involved, thus including active historic preservation groups in the decision-making process. Since the building could be repaired, demolition was not an option. This introduced several questions, as repairs depended on the building's future use, which was not clear at the time.
 - The level of strengthening needed. The owner believed that if the building was not to be demolished, then it should have an acceptable level of seismic safety for its inhabitants. The owner's consultant had a specific level of safety in mind, but the SHPO's consultant believed that the building did not need all the strengthening proposed by the owner. This divergence in the consultants' opinions took years to resolve as the strength of the structure and its historic construction were questioned. Professionals on either side had different assessments of the seismic strength of the building, creating further delays. This issue launched other questions. The owner and the consultant proposed that the strengthening they suggested was required by the San Francisco Code (Section 104 (f)), which was debated until it was shown not to be the case.
 - How to strengthen the building was also an issue. The owner's consultant proposed a certain scheme that used shear walls and temporary bracing. This proposal worried the SHPO, as it had an effect on the historical character of the building. The problem was that some walls

in the building were damaged and needed urgent treatment to maintain public safety. To complicate matters further, the owner was trying to find a developer for the building and did not want to subject it to any permanent repair work. They felt that the developer, the party who would be using the building, would repair the building according to its intended use. Thus the owner had to take actions to prevent immediate public hazard, and at the same time make such actions temporary.

The owner believed that demolition might be a better investment since the building was half-empty at the time of the earthquake. The desirability of the location increased the potential for such an investment.

- The high cost of the requested temporary strengthening was an issue. FEMA tried to minimize the cost as it attempted to maximize efficiency of disaster funding, so suggesting a two-million-dollar scheme for temporary bracing was problematic. FEMA proposed spending \$27,000 to repair the cracks. The owner insisted that the building was not safe and that retrofit was needed.

This phase involved much deliberation among the parties that were directly involved: the owner, FEMA, and SHPO. The public was invited for input and participation, as required by Section 106. Historic preservationists were involved in the meetings and the correspondence, and they pushed for solutions that could save the building with minimal intervention into its historic fabric. Yet as preservationists were pushing for saving the building, FEMA was concerned about saving cost, and the owner wanted an easier solution.

- Maintaining the integrity of the historic fabric, in addition to the historic character, are two issues that emerged as discussions continued. Retrofit work can affect the integrity of the architectural systems of the building (cf. Look 1997), and the bracing had an impact on its historic character. Since no one knew exactly how long it would be before a developer was found, such bracing could stay longer than anticipated. Such issues were of importance for the SHPO and historic preservationists, but the owner and the consultants believed that their suggested scheme would not have any adverse effect. This was a moot point in discussions, as each side insisted on its perspective.

In 1993, four years after the earthquake, the owner received warning from the Department of Public Works pointing out that the building was hazardous to public safety in its current condition. The owner decided to demolish the building in spite of the ongoing consultation with the SHPO, leading to the withdrawal of the SHPO from Section 106 review as a reaction to this decision. Still, FEMA would not give the owner the funds needed for the demolition, as the required Section 106 review was not yet completed.

2. *1993-1996: Primary decisions.* After the SHPO withdrew from the consultations, the Advisory Council on Historic Preservation (ACHP) became involved. The involvement of the ACHP resulted in a Programmatic Agreement between them, FEMA, and the owner that required the latter not to demolish the building unless it was shown that repairing it was unfeasible. It was agreed that the owner would brace it temporarily. The estimated total cost for the bracing, the retrofit, and repairs was more than six million dollars. Two million dollars of the estimated cost were for the temporary bracing, and the rest was redirected to other projects by the owner.⁵ This, however, did not provide a solution for the building, which was awaiting a developer to do the final repair work.
3. *1996-around 1998. Unresolved.* In this period, work was continued on the building to provide the temporary strengthening as planned, but the building was standing empty without use or repair. In a publication by the United States General Accounting Office (1996: 46), the building was cited as an example of buildings that should not have received earthquake funding since it was vacant.
4. *1998-2002: Final decisions.* A developer was found and the building became part of a development project for the empty lot beside it. At first the developer considered the demolition of the building, arguing that it was deteriorated. The owner stated that it preferred not to demolish it due to the agreement with the ACHP and FEMA, unless it was proven that repairs were unfeasible (Gordon 1999). It was finally decided to keep the building. In a hearing before the San Francisco Landmarks Preservation Advisory Board (San Francisco Government 1999: item 7), the owner proposed a project that included the adaptive reuse and seismic upgrade of the Williams Building next to a new tower of 430 feet in height for a mixed-use development featuring hotel rooms, a museum/cultural center, and associated parking.

With the eight-floor historic building cornered at the base, the project is controversial in terms of the appropriateness of such a solution in relation to the historic character of the building and its scale. The Williams Building was preserved as a facade while its interior was completely removed. Such a result demonstrates how cultural values are challenged after earthquakes.

5 It is a common strategy to use funds attained from FEMA for the repair of a damaged building for an alternate project.

Roots of the conflict

Before the conflict developed there were dormant differences between the involved parties. The values of the groups involved were different. SHPO and historic preservationists took cultural values into consideration, the owner focused on economic factors, and FEMA considered related federal laws and regulations.

The different values of the parties involved affected the goals they had:

- The owner was focused on limiting effort and maximizing return. The building was damaged and demolition could have brought development opportunities. The feasibility of repairs was important; thus, the owner wanted to leave the repair work for the future developer.
- The SHPO and historic preservationists valued saving the building, especially since many other buildings were unnecessarily lost after the earthquake. They both cared about its historic character and fabric. The SHPO also valued regulations and was interested, as a public agency, in fulfilling the laws related to the situation.
- FEMA was mainly focused on implementing related procedures and regulations, in addition to reducing the cost. The building was historic; therefore Section 106 was triggered. The correspondence documents indicate that FEMA had no specific position on the discussions between historic preservationists and the owner, and that FEMA was merely following procedure. This continued until tensions escalated in 1993; at that point FEMA adopted a proactive role and sent the owner a letter indicating other options.

Even when groups had similar goals, conflict existed due to differences of values. This was the case with SHPO and FEMA, who seemed to be working together to facilitate recovery, although they sometimes pulled in different directions. Some respondents identified that as a “hidden conflict.” FEMA was pushing for a cost reduction, while the SHPO was pushing for treatments that were sensitive to the historic fabric on the one hand, but increased cost on the other. This complicated matters for the owner, who had to satisfy both sides.

The regulatory context provided an environment in which such groups should have been able to negotiate, as the Section 106 process encouraged stakeholders to communicate. Yet negotiations failed when, due to safety concerns, the owner decided to demolish regardless of the other groups involved. While Section 106 allowed for an alternative when such negotiations fail by involving the ACHP, this does indicate that such negotiations could be managed differently to prevent similar conflicts. What seems to be missing

from the process is the conflict management approach, which could have helped during the early years before the negotiations stopped. Having an outside party play the role of mediator could help in identifying common ground.

For preservationists, the building was another cultural property that they were about to lose. Some respondents pointed out that saving the building gained heightened importance as a reaction to the many demolitions that took place in a short time, leaving the historic preservation community with feelings of loss. Thus, many arguments were presented on the significance of the building, the importance of keeping it, and the possibility of reusing it. This also led to historic preservationists pulling together to provide alternatives for the use of the building, and working with other culture-related groups toward that end. This provides an example of how different groups cooperate in a post-earthquake situation for a specific goal.

The value differences explain the initial stance each group had, but the conflict escalated, leading to failure of the consultation. The respondents identified the roots of such a negative development in three main categories:

1. The building itself: the previous neglect and archaic construction materials led the owner to feel that repairs would not be feasible, and the reusability of the building was in question.
2. The people involved: the owner, professionals, preservationists, and representatives of government bodies had different roles to play in the recovery. The most prominent issues were as follows:
 - Lack of sufficient knowledge about historic preservation and related laws. Literature has pointed this out, focusing on the importance of education (Eichenfield 1996: 12–28).
 - Lack of knowledge about disaster recovery and FEMA process. This was cited by literature as well as a cause of complications. Many people are unaware that FEMA has a specific process for obtaining funding, which leads to incorrect assumptions (Eichenfield 1996: 29–30; Mader 1994: 222, 229).
 - The institutional culture of the owner, a public body, was identified by some respondents as a major cause for the conflict. The management approach was cited as the reason for the neglect of the building before the earthquake, and was also a reason why an agreement on how to repair the building was not achieved with the SHPO.
 - The perception of the other groups is important in terms of trust. The consultation is undermined when any side believes that the other side has hidden intentions or is not trying to find a solution.
 - Attitude of the individuals involved.

3. The context: This point includes all aspects that create the environment in which the recovery was taking place. The points below do not cover all the categories that usually play a role, but they reflect the points that the respondents identified as important in this case.
 - Regulatory context. Laws and regulations create a context defined by their objectives and processes. There were federal, state, and local regulatory contexts within which different groups had to function. In this case three points were made:
 - Clarity of related laws and codes: for example, the question of whether the San Francisco Section 104 (f) code was triggered. The issue of the codes was also raised in literature in relation to acceptable risk levels, functionality, codes, and ordinances (cf. Fratessa 1994).
 - Clarity of the meaning of the red tag: The owner and the general public assumed that it meant that the building should be demolished. This is cited as a source of conflict for many buildings after earthquakes (Nelson 1991: 47–49; Spangle Associates 1999: 18).
 - The process in the local government was separated from the state and federal government, which complicated getting approvals and permits, as each side had its own requirements.
 - The technological context: This reflected the knowledge available to professionals on archaic construction materials, their strength, and ways of retrofit.
 - The political context: The relationship between the public agencies involved and their responsibilities creates questions about why the same project that was initially rejected was eventually approved. The fact that the building was still standing damaged four years after the earthquake might have created pressures on the parties involved, leading to compromises. The politics of how government agencies relate to each other on different levels (local, state, and federal) and with different roles (redevelopment, historic preservation, disaster recovery) is worth further investigation.
 - The economic context: The feasibility of the repair was in doubt many times during the many years of negotiations. Literature has pointed out that more demolitions happen in historic downtown areas that suffer economic depressions than in areas with good economic status, as the community assumes that demolitions would bring new development (Eichenfield 1996:11).
 - The social context: Respondents identified the strong preservation culture in the local community and the existence of preservation activists as important for post-earthquake recovery of such buildings.

This primary categorization, however, is of the perceptions of the interviewees. It is of interest because it shows how professionals in the field perceive the issue. It is clear that their experience indicated that the building itself was of limited effect in comparison to the people and the context, both of which had more input in creating the conflict. Both these categories, the people and the context, can be improved through education and recovery planning. This indicates the importance of preparedness for future earthquakes.

Conclusion

As literature has pointed out, historic buildings face challenges after earthquakes. The interviews indicate that the context and the people involved have greater importance as conflict generators than the building itself. Understanding the recovery process is important, as it helps in saving effort, time, and cost. Longer time in recovery leads to higher cost (Al-Nammari 2005).

This study indicates that conflict develops in post-earthquake recovery in stages. Immediately after an earthquake, individuals involved are interested in repair and recovery, yet an initial tension exists between stakeholders due to their different goals and values. Such tension can develop into conflict in later phases if it is not managed through consultation and arbitration. Such management should take place early in the recovery period, before conflict escalates. Most of the conflict takes place in relation to funding and financial aid, which corresponds with Geipel's findings about conflict during recovery (Geipel 1982: 171).

As a social process, this study shows how historic buildings can be a contested space in post-earthquake situations. As different groups pull in different directions for the management of available resources, historic properties acquire different values for different groups.

The objective of this pilot study was to investigate how such conflicts occur in relation to publicly-owned historic buildings. Further inquiry is needed to understand the dynamics of conflicts for private buildings. Such investigations would inform future recovery planning and preparedness, thus reducing future complications and providing a better understanding of the process and its players. Also, more research is needed on the value of historic resources in post-disaster situations, and whether their significance is affected by the damage.

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