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“The Rubble’s Standing Up” In Oroville, California:
The Politics of Building Safety*

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Disaster researchers have long been aware that the political context of mitigation and preparedness measures has a formidable impact on their initiation, adoption and implementation. Yet most discussion and reporting of the political aspects of disasters have remained anecdotal, and few scholars have attempted to incorporate systematically political forces into social science models applied to disaster phenomena. This paper represents an explicit attempt to describe and explain the impact of politics on the public policy debate over structural safety in Oroville, California, following a damaging 1975 earthquake.

Introduction

Overview

The small city of Oroville, California, sits in the foothills of the Sierra Nevada mountains, approximately eighty miles north of the state capital, Sacramento. Although only the second largest of four incorporated cities, Oroville serves as the seat of Butte County. Located along northern California’s Feather River and only eight miles downstream from the massive Oroville Dam, the city traces its history back to the turbulent Gold Rush era (“oro” means gold in Spanish). Many of the structures in the old downtown area date from the late 1800s and early 1900s, obviously well before building codes.

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On August 1, 1975, a series of four earthquakes struck Oroville. The epicenters clustered about five miles southwest of the city. The last and main event occurred at 1:20 p.m. and measured 5.7 on the Richter scale. This earthquake was felt as far south as Fresno, as far east as Lake Tahoe, as far west as San Francisco, and as far north as Mt. Shasta. No fatalities were registered and only twelve people injured, but the old downtown area suffered significant damage, most of it structural but subtle and therefore not easily discerned by the layperson. No vivid collapses occurred.

What to do about the damaged buildings specifically, and the downtown area generally, became the focal point of an intense public policy debate over the succeeding eight months. The debate revolved around five building ordinances, starting with one which stipulated structural repairs to various "red-tagged" (do not enter) buildings. The Oroville story ends, however, with a full-scale retreat from seismically strict rehabilitation standards.

Extending earlier work by Cobb and Elder (1971, 1972) on "the politics of agenda-building," Kingdon (1984, pp. 193-200) posited that specific "policy windows" for change and innovation open either predictably or unpredictably. Accidents, emergencies, or disasters fall in the latter category and constitute opportunities of which "policy entrepreneurs" (Kingdon 1984, pp. 186-193; Lambright 1984, 1985) avail themselves. In the field of disaster research, scholars and practitioners alike have made it an article of faith that damaging earthquakes open windows for seismic safety policy improvements. Therefore, this Oroville "reversal story" is important, and offered, as a cautionary lesson. Echoing our interests is an observation made by the Earthquake Engineering Research Institute (EERI) team which visited Oroville shortly after the earthquake:

This earthquake did not offer any new lessons from the structural engineering viewpoint, but the social science aspects will serve as a case history which should be studied by those seriously concerned with earthquake hazard abatement programs.²

More specifically within the social science aspects of this case, we are interested in the overt politics. Although disaster studies repeatedly make passing references to the importance of politics in hazard mitigation, disaster preparedness, emergency response, and then community recovery and reconstruction, only a few (Alesch and Petak 1986; Drabek, Mushkatel, and Kilijanek 1983; Lambright 1984, 1985; May 1985; Olson 1985; Olson et al. 1989; Olsen and Olsen forthcoming; Wolensky and Miller 1983; Wyner 1984; Wyner and Mann 1986) have attempted to treat the interface between politics and disaster in any depth.³
The Setting

The city of Oroville was not a booming community in 1975. Although the population had grown from 6,115 in 1960 to 7,536 in 1975, no increase had been registered since 1970, largely because of the completion of the Oroville Dam. In a sense, the earlier growth was merely “statistical.” The downtown area declined but was compensated for by growth in outlying areas, which were then annexed by the city. The problem downtown lay in its age (old) and lack of space (fully built-out).

The 1972 General Plan emphasized making the Oroville area a “regional commercial center” to compete with Chico on the north and Marysville/Yuba City on the south. The zones for this kind of development were outside the downtown area and along state highways. That is, pursuant to the General Plan, a major commercial and population shift out of downtown was already underway when the 1975 earthquake struck.

The Event: August 1, 1975

Although no one knew at the time that the three morning earthquakes were foreshocks, the people of Oroville were alarmed by the jolting. The last previously recorded earthquake occurred in 1940 and had been considered an “isolated event.” In the 1960s, however, the world’s highest earth dam (770 feet) had been constructed only eight miles upstream from the city. The earthquakes were one concern. Possible effects on the dam were another.

The major event struck at 1:20 in the afternoon. The shaking lasted about twenty seconds. The Mayor of Oroville, Robert A. Winston, was attempting to change his pants at the time. He failed and instead watched the water slosh out of his swimming pool, “the damndest thing” he had ever seen.

John D. Nolan, City Administrator at the time, has described the immediate aftermath of the earthquake:

Following this event the City focused on two major concerns: citizen reaction and immediate damage assessment. Many residents were experiencing their first earthquake and understandably were upset by the intensity of the earthquake and its aftershocks. Telephone circuits were overloaded, the local radio station was off the air for several minutes, and network news flashes reported Oroville as being rocked by sharp earthquakes causing partial destruction and evacuation of buildings, fires, and numerous injuries. Fears
about the stability of the Oroville Dam, located eight miles above
the City, created even more concern.

Media Convergence

In earthquake-conscious California, even moderate earthquakes attract
enormous media attention, and this was especially true with every earth-
quake after the 1971 San Fernando event. Not surprisingly, Oroville was
overwhelmed. Many reporters and mobile television crews arrived via the
highways, which were undamaged, but others arrived by air at the tiny
Oroville Airport. The Oroville Mercury-Register ran a wonderful story on
August 2 about the influx at the airport:

“[It all happened within a two-hour period],” said airport manager
Grover Wing. “At least 60 airplanes carrying 150 wild, crazy
reporters from all over the western coast landed at our airport.”

“They expected to find Oroville lying flat with dead people all
over the place,” Wing said. A shortage of ground transportation
further added to the hysteria at the airport. “All of our courtesy cars
were used, so they tried to get taxis, rentals and some even tried to
hitchhike into town,” Wing said.

“The phones weren’t working here, so they were all going insane
because they couldn’t call in their stories,” Wing said.

Informing the media and correcting initial exaggerated reports was a
major task for city officials the first few days after the earthquake. This is
a common problem in all disasters but was novel for Oroville, not usually
a focus for media attention. Lynn Roberts, then regional manager for the
California State Office of Emergency Services (OES), confirmed the media
problem:

After seeing for themselves that the city was not in ruins and unable
to locate bodies lying in the streets, they departed as quickly as they
had appeared. Nevertheless, many inaccurate stories were printed
throughout the country concerning the earthquake that day. One of
the first actions constituting aid was a consolidated factual report
prepared for the media by the OES staff.

The Damage

The California State OES prepared a summary report of the Oroville
earthquake and offered the following description of effects:
Damage to business structures was confined primarily to a four-block area in Oroville, where buildings were cracked, walls separated, parapets loosened, and glass was broken. Eighteen structures later were condemned and seven others required immediate repair. This area was evacuated and cordoned off.

Subsequent aftershocks, three of which registered above 5.0 on the Richter scale, caused minor new damage and further weakened some already affected structures. The aftershocks slowly diminished, however, and Oroville suffered no major additional damage.

**The Politics Begins**

The First Problem: Was It a Disaster?

In the days after the earthquake, assessment teams filled in a damage picture, especially in the downtown area, which was more serious than city officials originally believed. On August 4, Mayor Winston proclaimed "the existence of a local emergency" and officially requested that then California Governor Jerry Brown proclaim a state of emergency in Oroville "by virtue of locally available resources being inadequate to cope with said emergency." 18

Winston explained the change of position by saying that "initial observations didn't show extensive amounts of damage. However, after a thorough investigation over the weekend by city officials and independent sources, the damage was considered extensive." Two days later, Winston offered the marvelous observation that "We've got rubble, but the rubble's standing up." 19

The problem for Oroville was the nature and pattern of the damage. The important damage was structural but largely invisible (it required engineers to spot it), and it was almost exclusively confined to privately-owned buildings.

The first real substantive difficulty with responding to the Oroville earthquake and organizing for recovery and reconstruction revolved around differing (and changing) definitions of the situation. Initially, Mayor Winston and other local leaders had articulated the "Oroville is O.K." position. With no deaths and few casualties, this "Chamber of Commerce" bravado was understandable. As the engineers finished their structural evaluations of the downtown area, and as the financial implications of the damage began to sink in, however, the local leaders increasingly appreciated the desirability, even the necessity, of outside assistance.
When California State OES Director Charles Manfred visited Oroville on August 6, he was quoted as saying that he saw enough damage to recommend that Governor Jerry Brown declare a state of local emergency. The people of Oroville believed that this would open “a floodgate of assistance.” Upon returning to Sacramento, however, Manfred reviewed staff reports of the damage and changed his position. Dated August 6 and received in Oroville August 7, a letter to Mayor Winston from Manfred stated that he was “unable to find justification for requesting that the Governor proclaim a State of Emergency in the area.”

The Oroville City Council (and the Butte County Board of Supervisors) had passed declarations of local emergency, which they understood to be necessary to obtain state aid. The Manfred decision, however, precluded any significant state financial assistance, and without a state declaration of emergency, federal assistance also remained limited.

Reaction in Oroville to the Manfred decision was a mixture of surprise, resentment, and frustration. Mayor Winston attempted to put the best face possible on the situation by saying that he had never expected a state declaration. Other reports, however, indicated considerable anger at the Manfred decision.

Strictly speaking, the official position of OES on assistance to Oroville was entirely appropriate. At that time, it took considerable damage to public facilities to secure state declarations of emergency and federal declarations of disaster. Moreover, a precedent existed. In the 1989 Santa Rosa, California earthquake, damage was much worse than was the case in Oroville, but damage to public facilities was also slight, and no “disaster” was declared. Therefore, the State of California response to Oroville was technically appropriate. It was simply handled poorly.

The Building Inspections

Regardless of bureaucratic definitions of the situation in Oroville after the August 1 earthquake, the heart of the problem for the city was, and remained, the damaged buildings in the downtown area, especially the four confined-off blocks. The earthquake occurred on a Friday afternoon. Stores were set to open on Monday morning. The city officials of Oroville had the weekend to evaluate the damaged buildings and decide what policies to pursue.

Mayor Winston and City Administrator Nolan had organized a city inspection team immediately after the earthquake, supplemented on Saturday, August 2, by four visiting engineers from H.J. DeGraff and Associ-
sites of San Francisco and McClure and Messenger Associates of Oakland, who were in Oroville originally for the "sole purpose" of learning about building performance in the earthquake. Importantly, however, all of the visiting engineers were quite familiar with the 1969 Santa Rosa, California earthquake and that city's ordinances for abating damaged buildings.

The team rated and tagged each building reviewed as either: (1) "GREEN," meaning no hazardous conditions observed; (2) "BLUE," indicating that hazardous areas must be taken care of immediately or it would be designated "RED"; or (3) "RED," signaling that the building was unsafe for occupancy.

Developing An Emergency Ordinance

The possibility of using a Santa Rosa-type approach to their damaged buildings problems specifically and to the downtown area generally was very much in the minds of Oroville officials. On August 4, City Administrator Nolan called his counterpart in Santa Rosa, Ken Blackman, about Blackman's experiences, especially the combining of earthquake reconstruction with urban renewal. Nolan summarized the conversation for his office record:

Ken indicated that 80% of the buildings in Santa Rosa were structurally damaged by the earthquakes that hit that city in October 1969. At that time the city was underway with an urban renewal program in the downtown area. As a result of the earthquake, the urban renewal program was expanded to a phase 2 program which encompassed a larger area than the downtown business district.15

On August 7, 1975, a very important meeting took place. After the combined visiting engineers-city officials inspections of August 4, Mayor Winston convened a group to lay out a strategic plan to address the hazardous-structure problem in Oroville. From the transcript, the group comprised Mayor Winston; City Administrator John Nolan; Code Enforcement Officer George Barr; visiting engineers Frank McClure and Henry J. Degenkolb; and Jack Barrish, an engineer representing the Structural Engineers Association of California, who had arrived in Oroville on August 5. The immediate focus of the meeting was on the already red-tagged structures in the downtown area. More specifically, the group met to review a draft ordinance by Barrish.

The mayor opened the meeting but turned it over almost immediately to Barrish, who defined the first priority as "what can be done about making emergency repairs so that those [red-tagged] buildings possibly can be put
back to beneficial use [that is, reopened]." Barrish was careful to point out, however, that these emergency repair procedures were only the tip of the iceberg, because most of the buildings were not up to code before the earthquake.

At that time, the participants probably did not realize, or at least fully appreciate, that they were touching on questions which would start a major political debate in Oroville:

1. Should the buildings be repaired only to their condition prior to the earthquake, or should they be repaired to a much higher standard? Specifically, should the buildings be repaired to the point where they could be reasonably expected to resist a similar earthquake in the future, or perhaps should they be repaired all the way to current code?

2. How many buildings should ultimately be inspected and brought under the repair program? Should the program comprise only the then red-tagged buildings, or should it include all damaged buildings, or should it include all buildings in Oroville that were "pre-code"?

Conflict would focus on policy scope (number of buildings) and stringency (level of repair).

The immediate focus was the red-tagged buildings, and a draft emergency ordinance specified that (1) if the owner of a red-tagged building did not object to being deprived of its use, then he/she need not do anything, and the building would be declared a public nuisance and abated (i.e., torn down); (2) if the owner of a red-tagged building did wish to regain its use, however, then he/she had to retain the services of a civil or structural engineer to examine the building. The engineer would then file a report with both the owner and the city on the repairs necessary to reopen the building.

During the meeting, Mayor Winston was realistic (almost prophetic) about how long the political window of opportunity for seismic safety would remain open in his city:

We have no illusions about what's going to happen as soon as this town stops shaking. We're all going to be called into saving mud. We're going to be told about how these magnificent buildings stood up here under this shaking and what are we talking about? I know that: George [Barr], you know it too."

Toward the end of the meeting, Code Enforcement Officer George Barr reflected the classic trauma of a professional who has just been through a damaging earthquake and who now intends to be more strict:

"I check the plans. And this is the thing, probably since the inception of the building department, I’ll admit, it’s been a lax type thing as
far as thinking about earthquakes or major hazards are concerned. And all of a sudden we get it thrown right in our face and we realize that, thank God, nothing from 1950 on... has suffered any real damage. But from this point on, I think we've got to take a different look. 18

Mayor Winston concluded the meeting by (1) setting a timetable for city action on the draft resolution, (2) retaining a structural engineer for the city, and (3) establishing a citizen committee to provide input on further attempts to deal with the hazardous-structure problem.

The Stakes Increase

Embracing the “Santa Rosa Model”

On August 8, 1975, after returning to his Sacramento office, Jack Barrish wrote to City Administrator John Nolan. Barrish enclosed a rough draft of the emergency ordinance for Oroville to address currently red-tagged structures, but he proposed a sequence of policies of progressively greater scope: first, a resolution dealing with currently “red-tagged” structures; second, a resolution dealing with all earthquake damaged buildings, regardless of their “tag” and third, a “standing policy” addressing “any old” buildings, whether earthquake damaged or not. 19

Barrish also drew the explicit parallels with the policies developed in Santa Rosa and argued that Oroville follow a “Santa Rosa” plan:

Starting backwards, 3. above is a direct recommendation for adoption of something like Santa Rosa’s 9820 and 2. above is a recommendation for consideration of something akin to Santa Rosa’s 9165. Both of these will take time—I have referred to them generally at the back end of my proposed resolution dealing with 1. above. 20

The Barrish draft resolution would become the first substantive piece of city legislation dealing with the damaged buildings. It was given the Oroville resolution number 3121-A.

Resolution 3121-A

Resolution 3121-A was an “emergency” piece of legislation dealing only with the eighteen buildings which had been red-tagged:

1. If a property owner having a “Red-Tagged” building does not object to being deprived of its use, he need not do anything, and the
provisions of the Uniform Code for the Abatement of Dangerous Buildings will be automatically invoked as if the building had been declared a public nuisance subject to abatement.

2. If a property owner having a "Red-Tagged" building does object to being deprived of its use during the emergency he shall, at his expense, have the building examined by a civil or structural engineer who shall evaluate the building as to its degree of hazard and report thereon to the Owner and the City.

3. If the report called for above recommends that the building can have certain emergency repairs or shoring done which will reduce the risk to an acceptable level to enter even though not complying with...the Uniform Building Code...and if the Chief Building Official of Oroville agrees that these emergency repairs or shoring done he would not have "Red-Tagged" the building, then the Chief Building Official may remove the "Red-Tag" if these be done.

In addition, R3121-A committed the city to develop "interim guidelines" for all damaged buildings in Oroville, red-tagged or not, within thirty days and long-term inspection criteria by February 15, 1976.

Resolution 3121-A was a highly professional piece of legislation, and the Oroville City Council vote at the August 12 meeting was unanimous (six ayes, one absent). In effect, the "disaster honeymoon" was still on, and professional concern for safety dominated.

In a separate but related action at the August 12 meeting, the City Council voted to retain the services of Clair Hill and Associates (CEEM Hill), structural engineers, to work with Oroville Code Enforcement Officer George Barr. That is, the city now had an experienced structural engineer to advise and buttress its own staff.

The signs of the political problems inherent in the hazardous-buildings situation in Oroville began to show more openly, however, in the last week of August. Structural engineer Jack Call of CEEM Hill was in Oroville on August 25 to review reports on damaged buildings, several by structural engineer Kenneth Marr, who had been retained by several building owners.

According to a memo for the file by John Nolan, Call agreed with the Marr findings and recommendations to allow "temporary re-occupancy." Call was careful to point out, however, that future—and more stringent—rehabilitation standards might require additional repairs. Community leader and construction businessman Dair Tandy (who would soon be named to chair a citizen committee on rehabilitation standards) was present at the Call-Nolan meeting and offered the observation that property owners might
be reluctant to invest in repairs, especially if they might have to make more repairs later.  

Resolution 3127

Fulfilling its obligation under Resolution 3121-A to develop additional guidelines for building safety, Oroville city staff prepared a Resolution 3127 in the latter part of August for consideration at a September 4 City Council meeting.

The September 4, 1975 City Council meeting was very important. Present were Karl V. Steinbrugge, Chairman of the just-created California Seismic Safety Commission; Robert Olson, Executive Director of the Commission; and Past President Jack Barrish of the Structural Engineers Association of California. All three stressed the inherent fragility of the old sand-lime mortar buildings in California, Steinbrugge calling them "death traps," and they urged Oroville to move forward on earthquake-resistant rehabilitation standards. Similar sentiments were expressed by two representatives of CH2M Hill, Jack Call and Bob Brathwaite.

The public reaction was interesting and for the first time, mixed. Economic concerns were emerging to complicate the safety issue. The summary minutes of the meeting capture the cross-currents:

Mr. Dair Tandy, local general contractor, stated that many of the property owners are concerned about what will happen to their buildings after money is invested in their reinstatement. Mr. Jim Hill, property owner, stated that he also would like to be assured that if he puts $10,000 worth of repairs into his building, that it won't be red-tagged in five years. Mr. Howard Arnold concurred with Mr. Hill's statement. Mr. Guy Hart, property owner, stated that the natives of this City have always known there have been dangerous buildings in town and have learned to accept the risk. He urged the Council not to overreact in this situation. Mr. Darro Grineco, property owner, stated that the Council must be fair in a situation such as this and if one brick building is found dangerous and must come down, they all must come down... Mr. Bernie Bryson, structural engineer, stated that he has been engaged by property owners in the City to inspect a certain building and make recommendations. He asked that the Council set criteria on which he can base his recommendations.

After announcing that he would appoint a special citizen committee to help develop permanent earthquake safety building regulations, Mayor
Winston brought Resolution 3127 up for discussion and a vote. Despite some heated exchanges about effects on business, the vote was unanimous (seven ayes, none absent).

Resolution 3127 reaffirmed the existence of an emergency and the provisions of Resolution 3121-A, but broadened the policy to cover all buildings damaged in the earthquake. It also set a deadline (February 15, 1976) for the development of long-term guidelines.

City Administrator Nolan informed the City Council that as of August 29, eighteen commercial buildings had been red-tagged and three repaired adequately to allow temporary re-occupancy. Another twenty-six commercial buildings (technically, "separate addresses") had not been red-tagged but did require "emergency evaluation" under the new Resolution 3127.25

The Citizens Committee

As promised, on September 5, 1975, Mayor Winston appointed an eleven-member "Citizens Committee on Building Standards" whose charge was "to recommend to the Oroville City Council a level of acceptable risk and structural standards to be applied to existing structures in the City of Oroville."34 Added to the committee in an ex-officio capacity were Code Enforcement Officer George Barr, Fire Chief Eugene Ludwig, and Councilmembers Bramlage and Girdler. The committee also included two owners of damaged buildings in its attempt to assemble a "cross section of the Oroville community," closely paralleling the post-1969 Santa Rosa strategy.

Resolution 3132

The Citizens Committee on Building Standards met in full several times between September 10 and October 6. The result was Resolution 3132, brought before the City Council on October 6, 1975. It bore the strong imprint of Code Enforcement Officer George Barr and consulting structural engineer Bob Brattlowski of CSEM Hill. It was also the high tide point for seismic safety policy in Oroville.

Resolution 3132 was not limited to earthquake-damaged buildings, but rather required the Oroville Code Enforcement Officer, at public expense, to conduct "preliminary engineering surveys" of three groups of buildings to assess their general compliance with the 1958 Uniform Building Code. The three groups, however, comprised much of the city: (1) all buildings constructed before December 31, 1962, except public school buildings and one-and two-family dwellings; (2) all buildings built since 1962 using
unreinforced masonry walls; and (3) all wood buildings located in Fire Zone 1.

Given the scope of the required review, priorities had to be set, and Resolution 3132 specified the following top three priorities: (1) theaters, hotels, places of public assembly of 100 persons or more, hospitals, clinics, and governmental public buildings; (2) buildings adjacent to sidewalks with large volumes of pedestrian traffic; and (3) buildings open to the general public such as stores, shops, clubs, restaurants, office buildings, and public assemblages of less than 100 persons.

If, in the opinion of the city investigator, the structure met the requirements of the 1955 UBC, “including earthquake provisions,” no further action or tests needed to be taken. If the structure did not comply, however, the property owner had to secure a structural engineer to perform an in-depth evaluation, to be submitted to the City of Oroville.

After the property owner received the evaluation by the structural engineer, Resolution 3132 gave him/her two choices. The first was to “evacuate and abate” the building, which meant tear it down. The second was to reinforce the building to set and rather strict criteria, which Resolution 3132 also provided.

Resolution 3132 gave the property owner sixty days to obtain the report and strengthening design by a structural engineer, ninety days after that to commence strengthening, and 180 days after that to finish the work. Buildings not strengthened would be “abated” within ninety days by the city.

The vote on R 3132 was, for the first time, split and provided a glimpse of what was to come: AYES: Winston, Sylva, LaMesa, Richter; NOES: D'Arcy, Girdler; ABSTAIN: Braunlage.

More important, however, was the fact that the two City Council members who sat with the Citizens Committee on Building Standards either voted against Resolution 3132 (Girdler) or abstained (Braunlage). In addition, Councilmember D'Arcy had been Mayor Winston’s original choice to sit on the Citizens Committee, but he declined, and Councilmember Girdler was named instead. The cleavage was becoming increasingly clear.

Economics, Politics, and Safety

Shortly after Resolution 3132 passed and its scope and stringency fully appreciated, “all hell broke loose.” More precisely, a countering interest group was formed to fight Resolution 3132. The group comprised mostly the owners of commercial buildings in Oroville and came to be called the
Oroville Property Owners Association (OPOA). They immediately retained
the services of structural engineer Kenneth Marr.

Interestingly, on October 21, and showing acute political judgement,
Marr advised a client to delay action, that the future of Resolution 3132 was
dim.

City Resolution #3132 passed on October 6, 1975, requires that all
older buildings be strengthened according to a fairly rigid set of
rules and structural requirements. We have reason to believe that
these criteria will be relaxed before long and we therefore recom-
mand that you wait to see what happens. It might be somewhat less
expensive to strengthen this building structurally later than if you
were to have [proceeded] under present requirements.29

Marr was quite correct. The disaster honeymoon, where life-safety is
the sole criterion, was completely over by mid-October, 1975. As the
trade-offs between costs and safety became more explicit, the politics of
recovery and reconstruction became more intense.

Turnaround

OPOA

The Oroville Property Owners Association had as its avowed purpose
the "adoption of a realistic, practical, and economically feasible structural
code that will restore Oroville's business climate as soon as possible."30
They met several times after the October 6 passage of Resolution 3132. It
was reported that by October 23, OPOA had nearly fifty members. In a city
the size of Oroville, that was an impressive number.

OPOA asked Kenneth Marr to prepare a cost implication analysis of
Resolution 3132. On October 21, 1975, Marr provided an extended analysis.
Marr noted that the inspection fee alone would run from $800 for a "very
simple building" to $3,500 for a complicated structure. Rehabilitation
would cost $10 to $35 per square foot.31

To place the Marr letter in the proper economic and political context, it
should be noted that several downtown property owners have said that the
inspection and probable repair costs for their buildings exceeded the original
purchase price. Small wonder that Resolution 3132 galvanized such intense
opposition. While a professional marvel, Resolution 3132 was dangerously
naive politically.
Resolution 3132 Suspended, Rescinded

With the increasing protests and pressure, Mayor Winston and the rest of the City Council agreed to hear dissenting opinions at a November 3, 1975 meeting. The summary minutes are interesting and catch the flavor:

A letter was received from Leroy G. Clayton, Oroville Masonic Temple Association, dated November 1, 1975, expressing concern regarding the impact City Resolution No. 3132 has on the Oroville Masonic Temple. Mr. Irving Pahl appeared representing the Property Owners' Association to protest Resolution No. 3132 stating that the resolution is too costly, restrictive and unacceptable. Mr. Pahl also requested that the resolution be referred back to the Citizens' Committee. Mr. Guy Hart concurred in Mr. Pahl's statement. It was moved by Councilman Bramlage and seconded by Vice-Mayor Sylva that a moratorium be declared on Resolution No. 3132 for a period of 30 days and that the Mayor be authorized to appoint additional members to the Committee. Passed by the following vote: AYES: Bramlage, D'Arcy, Girdler, LaMusga, Richter, Sylva, Winston; NOES: None; ABSENT: None.

Mayor Winston appointed Mr. Pahl to the Citizens' Committee who agreed to act as a liaison between the committee and the Property Owners' Association. That is, on November 3, 1975, less than a month after its passage, Resolution 3132 was suspended—by unanimous vote. Further, not only was the Citizens Committee on Building Standards reactivated, but also Mayor Winston was directed to appoint a member of OPOA to that committee as "liaison." By this action, the Oroville City Council legitimated OPOA and gave it direct input into the revision process of Resolution 3132.

Objections to the scope and stringency of R3132 were so basic that the now-expanded and reactivated Citizens Committee on Building Standards soon scrapped the idea of revising the resolution. Instead, on November 13, chairperson Dair Tandy informed the City Council that the Citizens Committee had voted on November 11 to formally recommend that Resolution 3132 be rescinded. The committee would then start over on a new resolution.

On November 17, 1975, the Oroville City Council formally considered the Citizens Committee recommendation that Resolution 3132 be rescinded. The vote was as follows: AYES: Bramlage, D'Arcy, Girdler, LaMusga, Richter; NOES: Sylva, Winston; ABSENT: None.
The vote to rescind was essentially a mirror image of the original October 6 vote passing Resolution 3132. Councilmember D'Arcy had voted against R3132 originally, and he made the motion to rescind. Councilmember Bramlage had sat on the Citizens Committee but had abstained on the original October 6 vote. He seconded the D'Arcy motion to rescind and voted to rescind. Councilmember Girrle had also been on the Citizens Committee and had voted against Resolution 3132. He also voted to rescind. The “swing vote” to rescind were LaMurga and Richter, isolating Mayor Winant and Vice-Mayor Sylva. Property owners, as represented by OPOA, had won a major victory.

Resolution 3161

If Resolution 3132 had been a code enforcement officer’s and structural engineer’s “dream ordinance,” then what would eventually become Resolution 3161 was a complicated and highly political compromise which took a long time to develop, in part because of the Thanksgiving, Christmas, and New Years holidays. More important, however, was the fact that compared to Resolution 3132, so many more interested and now highly motivated parties were involved.

Over the next several months, numerous meetings and exchanges of letters and draft resolutions took place involving Kenneth Marr, Bob Braithwaite, George Barr, John Nolan, the Citizens Committee, and OPOA. Interestingly, the idea of two resolutions was gaining ground. The first would deal with the repair of buildings visibly damaged by the earthquake. A second resolution would deal with the problem of parapets, ornamentation, and unreinforced masonry buildings generally. “Dividing the issue” into component parts is an old political tactic, but it carries its own dangers, as we shall see.

On December 23, 1975, Marr began submitting written suggestions to the City of Orovile, directing them to John Nolan. The first was to substitute the “judgment” of a structural engineer for physical testing, and the second narrowed the required repairs to only damaged portions of buildings.89

Bob Braithwaite of CH2M Hill reviewed the resolution and the suggestions by Marr. He concurred with the specifics but remained uncomfortable with the limited scope and the reduced stringency of the requirements.

The resolution that has been proposed by the committee for the Council’s consideration will require that visible damage that was done to a building by the 1 August 1975 earthquake be repaired.
The resolution will also require that the deficiency that permitted the damage to occur be corrected.

This resolution does little to reduce the hazard to occupants of buildings constructed of lime-mortar brick masonry, particularly if there is no visible evidence of damage as a result of the 1 August earthquake. Historically, it has been demonstrated that this type of construction performs very poorly during earthquakes.31

Braithwaite again attempted to have the City Council deal with the more general problem, but he allowed that a separate resolution might be an alternate strategy:

I suggest that the Council either modify the proposed resolution or adopt a second resolution to require (strengthening)...of all lime-mortar masonry buildings... 32

On February 2, 1976, the Oroville City Council met and ordered that the City Attorney be brought in to put the resolution in final form. The resolution, now numbered 3161, would come before the City Council on March 1, 1976.

Braithwaite reviewed the draft R3161 and concurred with it. He still wanted a second resolution, however:

The present wording of Resolution No. 3161 requires that parapet walls be removed or braced and walls be tied on all masonry buildings that were damaged by the earthquake. Because the falling of brick parapet walls and the collapse of lime mortar brick buildings constitute some of the greatest hazards during an earthquake, I strongly recommend that another resolution be adopted to require that parapets be removed or braced and walls be tied on all unreinforced masonry buildings even if such buildings were not damaged by the past earthquake.33

Marr also reviewed the draft and concurred with Braithwaite:

Mr. Braithwaite and I are in complete agreement that a further resolution should be passed as soon as possible. Resolution No. 3161 only covers earthquake damaged buildings and says nothing about the many other old buildings in town of unreinforced lime mortar brick masonry that have a potential public hazard equal to most of the conditions in the present earthquake damaged buildings.34

As a professional, Marr himself emphasized that R3161 was a political solution, not an optimal resolution from a purely engineering (or legal) point of view.
It is also imperative that all parties concerned be aware that the repair measures provided in Resolution No. 3161 do not constitute a level of earthquake resistance equal to that in new buildings as required by the Uniform Building Code, which the City of Oroville uses as its standard. Anything short of these building code requirements is not fully "safe" in the legal sense, but merely a compromise providing some measure of repair and correction work to make the buildings better than they were before the earthquake.98

If a compromise leaves no party truly satisfied, then R3161 was a classic. The Citizens Committee on Building Standards' "take exception" to several items in R3161, and even more interesting, OPICM opposed R3161 when it came before the City Council the night of March 1, pressing for further weakening in scope and stringency.99

As finally approved, Resolution 3161 opened with the usual "whereas's" and set the preliminary survey to be carried out by "the building official of the City of Oroville." Of course, the scope was only "earthquake damaged buildings." The priorities (theaters, hotels, buildings adjacent to sidewalks, etc.) remained as before.

The key "political" clauses started with Section IV, "Scope of Property Owners Structural Investigation," paragraphs #1 and #4:

1. Upon receipt of notice of requirement of further structural investigation, the property owner shall obtain a qualified civil or structural engineer licensed by the State of California at the property owner's expense to conduct said structural investigation.

4. After the property owner's structural investigation has been filed and approved by City, the building must be reinforced to meet the requirements of Section V of this resolution or be evacuated, demolished and removed as provided in Section V herein.

The key provision of that Section V, "Requirements for Continued Use of Structure," was #2:

2. The portions of the buildings structurally damaged by earthquake shall be restored or reconstructed to a condition of structural integrity equal to or better than they were before the earthquake. In addition, the structural conditions and deficiencies which allowed the damage to occur shall be corrected, reinforced and structurally designed to resist a lateral seismic force equal to 2% of all vertical loads imposed on the portion of the building being reinforced. All damaged parapets on masonry buildings will be removed down to a height 12 inches maximum above the adjacent roof level to
which the parapets shall be anchored, or braced adequately to withstand a lateral force equal to 1.5 times the weight of the parapet. Damaged stone or cast ornamentation shall be anchored to resist a lateral force equal to 1.0 times the weight of the ornamentation.

Damaged masonry walls shall be tied with a continuous system through to the opposite wall at roof and floor lines. Where ground floor level is four feet or less above adjoining grade no ties will be required at that floor. Such ties shall be designed for a lateral force equal to 20% of tributary wall weight.

The City Council debated R3161 intensely, and it split. Mayor Winston could not bring himself to vote for a "weakened resolution" which he called "spackle and paint improvements..." Winston took the position that R3161 was "sticking our neck out a country mile." When it came to a vote, Mayor Winston and Vice Mayor Sylvia voted against R3161; but Councilmembers D'Atty, Girdler, Richter, and LaManga voted for it. Councilmember Bramlage was on vacation.

After the passage of R3161, only a draft R3168 remained, the intended companion piece to R3161, dealing with the general problem of weak buildings and dangerous ornamentation. It was doomed, however. Dividing the issue is suicidal unless you know in advance that you can push through both pieces.

Resolution 3168

The official title of R3168 was "A Resolution of the City of Oroville to Reduce Earthquake Hazards Posed by Existing Non-Reinforced Masonry Buildings." It had three targets: (1) parapet walls, (2) building walls which could separate from floors or roof, and (3) ornamentation and appendages in general.

Resolution 3168 opened with a section stating that "every owner of a non-reinforced masonry building...may notify the [Oroville] Building Official of any parapets, ornamentation, or appendages needing removal, repair and/or reinforcing." The key section, however, was the following:

Whether or not contacted by the owner, the Building Official of the City of Oroville may conduct a survey to determine the existence of hazards on non-reinforced masonry buildings. If the Building Official determines that a hazard exists, a NOTICE OF CORRECTION will be sent to the property owner...specifying the specific hazard to be removed or corrected.
The most important section came later in R3168, "Building Ties." The idea was to have owners tie their buildings together to avoid the major killer in an earthquake: the separation of walls from floors and roof and resulting collapse. R3168 was again specific:

Ties shall be installed in both directions across all non-reinforced masonry buildings in an effort to reduce the possibility of the walls separating from the floors or roof under the action of earthquake forces.... Such ties shall be connected to a continuous system adequate to transmit the calculated loads to the opposite wall.

Under "Ornamentation and Appendages," R3168 was again specific and succinct:

All cast stone or masonry ornamentation or appendages shall be anchored to the structure to resist a force equal to 1.0 times the weight of such ornamentation or appendage.

The final substantive section of R3168 provided the timetable: The property owner had sixty days after city notification to submit plans, another sixty days after approval to commence work, and six months from approval of plans to completion of repair or removal.

Resolution 3168 was a professionally solid—and politically rather moderate—attempt to remove the major life-safety threats in the event of another Oroville earthquake similar to the August 1, 1975 event. Nonetheless, it was defeated easily, by the mirror image of the alignments on the "paint and spackle" Resolution 3161: AYES: Winston, Sylv; NOES: Bramlage, D'Arcy, Girdler, Richter; EXCUSED: LaMonga.

The story of Oroville's attempts to deal comprehensively and systematically with its hazardous-structure problem was over. The damaged buildings were to be repaired only to their pre-earthquake condition, the very condition which led to their being damaged in the first place. Nothing was required of all the other pre-code, and by definition earthquake hazardous, buildings in Oroville. They are mostly still there. In fact, so are some of the damaged structures, which were repaired exactly as Mayor Winston feared—with "paint and spackle."

Conclusion

We stated at the outset that it was important to understand the Oroville story because it runs counter to the conventional wisdom that disasters lead to public policy improvements in hazard mitigation. Although the first steps in Oroville after the August 1975 earthquakes were positive, it is obvious
that the trend reversed after a few months. In light of all this, what does the Oroville story tell us about the politics of building safety?

In the May 1985 issue of Policy Studies Review, one of the current authors attempted to specify overly political "necessity" and "sufficient" elements for hazardous-structure abatement, drawing from the history of City of Los Angeles efforts to deal with earthquake-vulnerable structures. The necessary elements were (1) an insider leader, (2) media attention, (3) a financial incentive to retrofit, and (4) an astute political strategy which assured building owners that the pace of abatement implementation would be sensitive to the size and incidence of the costs. The sufficient elements were (1) an earthquake forecast, (2) concerns over potential liability if nothing were done and people were killed or injured in an earthquake, (3) lower than feared retrofit costs, and (4) state statutory permission to design retrofit to less than current code.

In terms of model-building, what does the Oroville story have to say about these elements? Let us examine the necessary conditions. First, it is obvious that Oroville had the "inside leader" or "policy entrepreneur," and a good one, in Mayor Robert Winston, who was well supported by City Administrator John Nolan and Code Enforcement Officer George Barr. On media attention, however, while it is true that the local newspaper covered the issue of "what to do with downtown," it never took a strong editorial stand (unlike the Los Angeles Times in that city's hazardous-structure debate). Rather, the Oroville Mercury-Register reported the positions and exchanges on both sides without taking a strong one itself.

The major problems in Oroville in 1975-1976 were with the third and fourth of the necessary factors. Without a state or federal disaster declaration and without any substantial inflow of outside loans, grants, or other incentives, Oroville was clearly "on its own" in dealing with first, its damaged buildings, and second, its vulnerable buildings. The political game was restricted to Oroville turf, and the policy entrepreneur group became isolated and unable to call in external allies with meaningful resources to counter the affected and highly motivated building owners.

To be fair, we should note that the building owners in Oroville faced the dismal prospect of socializing the benefits and privatizing the costs of seismic safety. That is, the building owners would be providing a social benefit (improved safety) out of their own pockets. With a commercial center developing outside of the downtown area, the prospects for recouping that kind of investment were not good.

Also problematic was the lack of a politically sensitive implementation plan for retrofit of suspect buildings. There is simply no evidence in the
record to indicate that the building owners saw anything but a "hard line" coming from the city. Moreover, the early—and then rescinded—R3132 scared them into organizing, in large measure because R3132 was so uncompromising.

On the "sufficient" factors, the very experience of the August 1 earthquakes took the place of a credible forecast. On lower than feared retrofit costs, Oroville in 1975-76 simply did not have much data, and the cost estimates were high relative to the value of the buildings in question. This point interfaces with the fact that state statutory permission to retrofit to less than current code only came in 1980. In 1975-76, no one in Oroville could be sure that after all of the interim steps were taken, it would not at some future point in time be required to bring all of the buildings up to current code. Finally, unlike in Los Angeles, concern in Oroville over liability never became prominent. Oroville appears to have determined tacitly that the threat of another earthquake and possible building collapses falls within "acceptable risk."

In closing, it is interesting to note that the Oroville story affected how Coalinga, California, handled its damaged buildings after its May 2, 1983, Richter magnitude 6.7 earthquake: Within a few days, most of the structurally damaged buildings had been torn down. The decision to raze much of the Coalinga downtown was based in part on awareness of Santa Rosa in 1906 and Oroville in 1975. According to a report by the California Seismic Safety Commission:

City officials had learned that the way other earthquake-stricken communities handled the problems of hazardous buildings had influenced community recovery. One official explained that this point was made in early meetings by those advising the city about recovery... "they advised us, or showed where Santa Rosa had recovered rather quickly, and Oroville still hasn't, because of some of the old buildings that are still there... I didn't go up and look in Oroville, but they said there are many of the damaged buildings that are just like they were ten years ago. So, we didn't want to see that happen."

That is, the Coalinga officials had both a positive (Santa Rosa, post-1906) and a negative (Oroville, post-1975) case from which to learn. It would be interesting now to compare the reconstruction processes and results of all three cities.

All by itself, however, the Oroville story serves as a useful antidote to the easy optimism that earthquakes automatically open the way for major
seismic safety policy advances. Admittedly a value judgement, sometimes
the good guys don't win.

Reference Notes

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3. A more complete bibliography on the interface between politics and
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19. Letter from J.S. Barrish, Structural Engineer, to John Nolan, Oroville City Administrator, August 8, 1975.
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35. Ibid.

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