8. ARCHITECTURAL, EQUIPMENT AND PROPERTY DAMAGE

8.1 Property Damage

As is true in most earthquakes in populated areas, the most widespread type of damage was in the form of breakage or damage of household belongings and store merchanidise that toppled from shelves, or sometimes fell with the shelving to the floors. Even cupboards and refrigerators were thrown open spilling their contents. Supermarkets and liquor stores sustained heavy losses of shelved inventory particularly in the Goleta Valley area as can be seen from Fig. 8.1. One of the worst casualties from the standpoint of fallen objects was the UCSB Library where almost one-third of the Library's 1.2 million volumes tumbled to the floor as shown in Fig. 8.2. The book shelves in the Library are all anchored to the building walls, and none fell over. In general, household furnishings and other items that were top heavy and free standing on small bases fell over. In UCSB campus laboratories, hundreds of items crashed to the floors, particularly in storerooms. Wall cabinets were pulled out of their mountings and fell over desks, laboratory tables and equipment. Spilled chemicals and the possible danger of noxious fumes brought county firemen with breathing apparatus to the Chemistry Building shortly after the earthquake. Arrangements had to be made for the removal of chemical wastes. Several rattlesnakes stored in glass cases in the building had escaped, but were soon recaptured and accounted for.

Another widespread type of damage was broken glass in residential, school, and commercial buildings. Many commercial buildings required the replacement of large tempered glass window panes. Because the earthquake had occurred on a Sunday and lumber yards were not open, glaziers were soon running out of plywood for boarding up broken windows following the quake. To resupply the glaziers with plywood, police opened up a lumber yard. After the earthquake, there was also a demand for auto glass because garage doors and other items in garages had fallen on cars breaking their glass.

8.2 Architectural Damage

Most of the architectural damage to residential and commercial buildings was limited to minor cracking and falling of plaster and stucco, dislodgment of air conditioning ducts, and dislodgment of tiles and panels from suspended acoustical ceilings. A potentially hazardous example of falling ceiling panels occurred in a lecture hall of the Chemistry building at UCSB. There, sheet metal panels about 8" x 48" x 18 gauge and weighing several pounds each were dislodged from ceiling strip openings and went sailing down on top of the unoccupied seats below leaving gashes in the backs of the seats. Views of the ceiling and of a dislodged panel are shown in Figs. 8.3 and 8.4. Less frequently, lighting fixtures were loosened or fell outright as shown in Figs. 8.5 and 8.6. The most frequent location of damage to suspended ceilings was found to be near where the ceilings abut against vertical walls. At such locations, the lateral motion of the ceilings against the walls resulting from the pendulum like swinging of the suspended ceilings caused the ceiling frameworks to spread apart and spill their panels. Since 1975, minimum standards for cross-bracing of suspension channels

Fig. 8.1 Toppled merchandise at Smith's Food King supermarket in Goleta. (Santa Barbara News-Press photo. Reproduced by permission).

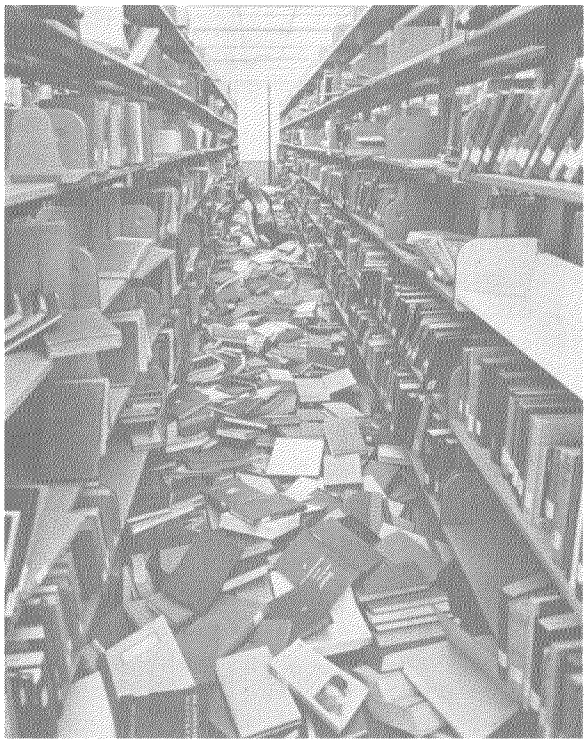

Fig. 8.2 Fallen books in the 1.2 million volume collection of the UCSB Library. (Santa Barbara News-Press photo. Reproduced by permission).