Building Name Address	Use ((per FSA Annexed Table 1)	Date and Time of Incident	Structure and Stories Area	Extent of Damage (Damaged Area/ Total Area)	No. of Casualties
Sushi Yoshiroh Inn 1484 Wakaura、Wakayama City, WAKAYAMA	Hotel (5) a	Jan 2, 1971 Breakout at 01:03 (approx) Detected at 01:20 Notified by emergency call Extinguished by 03:25	Partially wooden (Old Building) Fire resistive, partially steel frame (New Building) 4 stories above ground and 3 below Building area 1,056 m² Total floor area 2,749.06 m²	**[All]**, Half, Partial, Small 2,749.06 m² (100%)	Fatalities 16 Injured 15 (4)

I. Summary of Fire Incident

(1) Summary

During the New Year's holiday period, on January 2nd, the hotel was completely destroyed by the fire that broke out on the 2nd floor of the building. The fire was detected late and the hotel was an old wooden structure with no fire compartments, which meant that the fire spread quickly. This fire resulted in 16 fatalities.

(2) Conditions per Floor

Floor	Total area M² Old Bldg	Total area M² New Bldg	Damaged area m² Old	Damaged area m² New	Use (Purpose) Old	Use (Purpose) New	No. of people Old	No. of people New	No. of fatalities Old	No. of fatalities New	Fire escape equipment	Firefighting equipment
4					Guest rooms		25		16		Inside stairs 4 sets of rope ladders 1 set of evacuation bridges 1 fixed ladder	Fire extinguishers Short circuit detector Guiding lights
3					Guest rooms		20					
②					Large hall, Office	Guest rooms		12				
1								12				
B1						Hall, Bath		5				
Total	1,828	921.06 2,749.06	2,749.06					74		16		

(3) Origin of Fire

(Floor, Room, Part, Combustibles, Habitable/Non-habitable Rooms, Present/Absent)

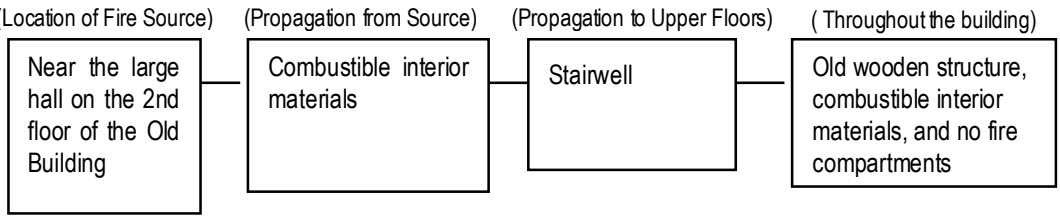
From the north-west corner of the large hall next to the 2nd-floor entrance in the Old Building.

- The hallways and interiors of each room were mostly made of combustible materials such as plywood.
- The origin of the fire was next to the wooden large hall and the main stairwell leading to the 3rd and 4th floors.

(4) Cause of Fire

Unknown

(5) Fire Propagation Path



This fire originated in the north-west corner of the large hall next to the 2nd-floor entrance of the old building. Initially the fire mainly spread to the upper floors through the stairwell nearby and then spread horizontally on each of the 2nd to 4th floors. The spread to the lower floors (the 1st and basement floors) was caused by burning objects that fell through the collapsed floors.

- Main Reasons for Propagation of the Fire
  - The origin of the fire was the wooden large hall (open space, plywood walls) and there were no fire compartments to prevent the fire from spreading.
  - The stairwell was an open space where the thermal current could become concentrated and ascend the space easily.
  - The detection of the fire was significantly delayed.
- Smoke Propagation Path

  The 2 sets of open stairwells near the fire room became the smoke propagation path, and a large amount of heavy smoke ascended along this path. Once the smoke reached the uppermost area, it started descending gradually and became concentrated on each floor.

II. Summary of the Building

(1) Built

Construction, Completion, and Major Renovations
(Old Building) Constructed in the early 1920s (or 1910s) and expanded over the years. (New Building) February 1957

Fire Prevention Management

(2) Vertical Shafts

Stairs	[X]	Duct Spaces	[ ]
Elevators	[ ]	Pipe Shafts	[ ]
Escalators	[ ]	Other ( )	[ ]

The stairwell was fully open type.

(3) Fire Prevention

- The hotel director was the fire-prevention manager and had submitted a fire defense plan to the local fire station.
- The hotel proactively maintained employee training and fire drills with the local fire station.
- The last security patrol ended at midnight (00:00).

(4) Fire Compartments

No fire wall or fire compartments over a 3,000m^2 area. The interior walls were made of plywood.

(5) Firefighting Equipment

- The local fire station recommended the hotel to install an automatic fire detection system as soon as possible, and the hotel complied with this and made arrangements with the contractors to start the installation on January 10, 1971.
- The hotel was exempt from the installation of indoor fire hydrants.

III. Actions Taken after the Fire was Detected

(1) First Detected

- **Detected by** (Hotel director's wife)
- **How and why** (Unusual sound)
- **Action taken** (Alerted by a shout of "Fire!")

The hotel director's wife was asleep in her residence near the entrance on the 2nd floor and she heard an unusual noise coming from the *Satsuki* Room on the 3rd floor. When she came out to the hallway on the north side of her residence, she saw the fire in the vicinity of the stairwell that was located next to the large hall stage and leading to the 3rd and 4th floors. She alerted others by shouting "Fire!" and made a 119 call. She also unlocked the entrance on her way to notify the owner. After she alerted the 3rd floor of the New Building, she ran through the kitchen to the outside via the souvenir shop.

(2) Emergency Call

Emergency Call	Yes [X] (Hotel Director's wife)	Time elapsed since the discovery (17) minutes
	No [ ]	

(3) Initial Firefighting Activities

Initiated	Successful [ ] Failed [X] - Extinguished timing [X] - Firefighting difficulties [ ] - Firefighting method [ ]	**(Reasons or Conditions)** Although a female maid and a male employee began pouring buckets of water on the fire, the fire was already beyond control by the time it was noticed, and therefore their attempts were ineffective. Those helping to extinguish the fire evacuated the building once they realized that they could not control it, and they did not have the time to alert the guests on the upper floors of the fire.
Not Initiated	- Extinguished timing [ ] - Firefighting difficulties [ ] - Firefighting method [ ] - Other [ ]	

(4) Summary of Firefighting Activities

(Obstacles or Difficulties in Fire Control)

- By the time the first firefighters arrived, the Old Building was fully engulfed in fire, which was spreading to the souvenir shop and dining hall on the west side of the fire building. By the time all the firefighters arrived, the entire building was in flames and search and rescue activities were no longer feasible.
- Although the building was surrounded by the ocean, the fire engines could not drive up close enough to pump up the seawater; therefore, firefighters had to find other ways to secure water a long distance from the hotel. A structure built on the steeply inclined shoreline would have secured effective space or a connection that would have enabled the fire vehicles to utilize the seawater.

(5) Evacuation

Means of Escape (No. of Persons)	Obstacles to Evacuation
° Stairs [ ] () ° Elevators/Escalators [ ] ( ) ° Escape equipment [ ] ( ) ° Directly to ground from windows or openings [X] ( ) ° Rescued [ ] ( ) ° Other ( ) [ ] ( )	° No windows [ ] ° Barred openings [ ] ° Locked emergency doors (Exits) [ ] ° Alarm system [X] (Poorly controlled, Malfunctioned, **Not installed**) ° Power outage [ ] ° Other [ ]

The guest rooms were located on the 3rd and 4th floors of the Old Building and the 1st and 2nd floors of the New Building. The guests who were on the fire floor and below the Old Building were able to evacuate safely. Two guests from the 3rd floor escaped via the stairs, with the rest evacuating to the rooftop from the windows. From the 4th floor, some of the guests jumped from windows or evacuated to the roof. All 25 guests on the 4th floor were victims of this fire: 16 fatalities, 4 severely injured and 5 injured. The 2nd floor of the New Building was lower than that of the Old Building, so the hotel staff members were able to lead the guests to the emergency exit through the hallway.

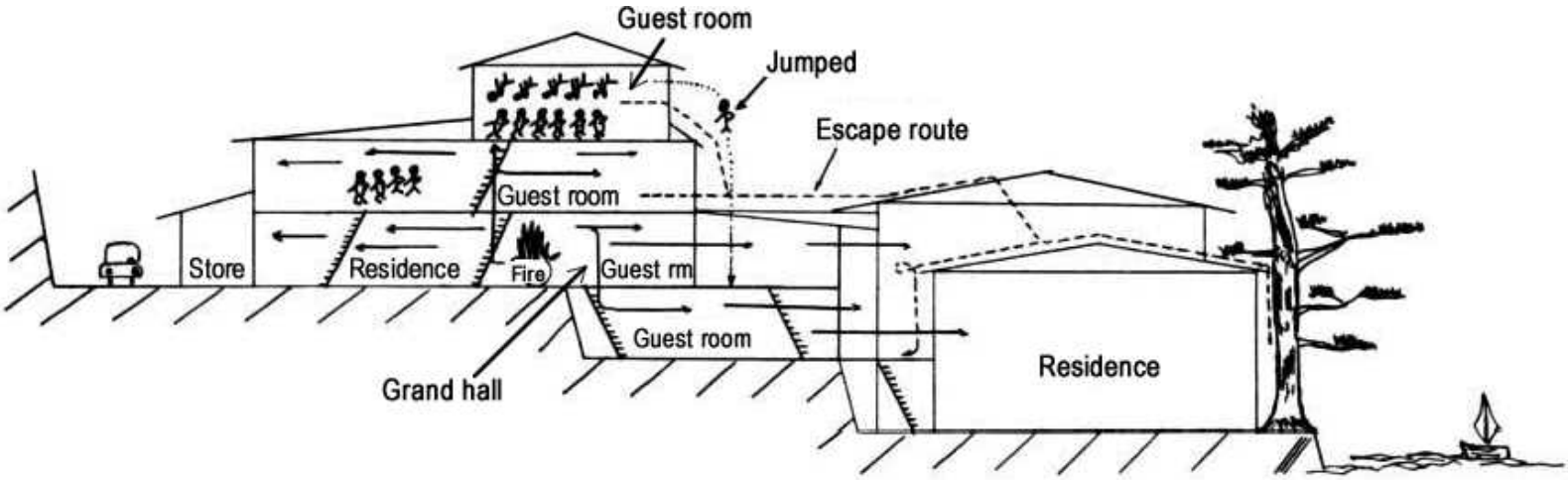
(6) Causalities

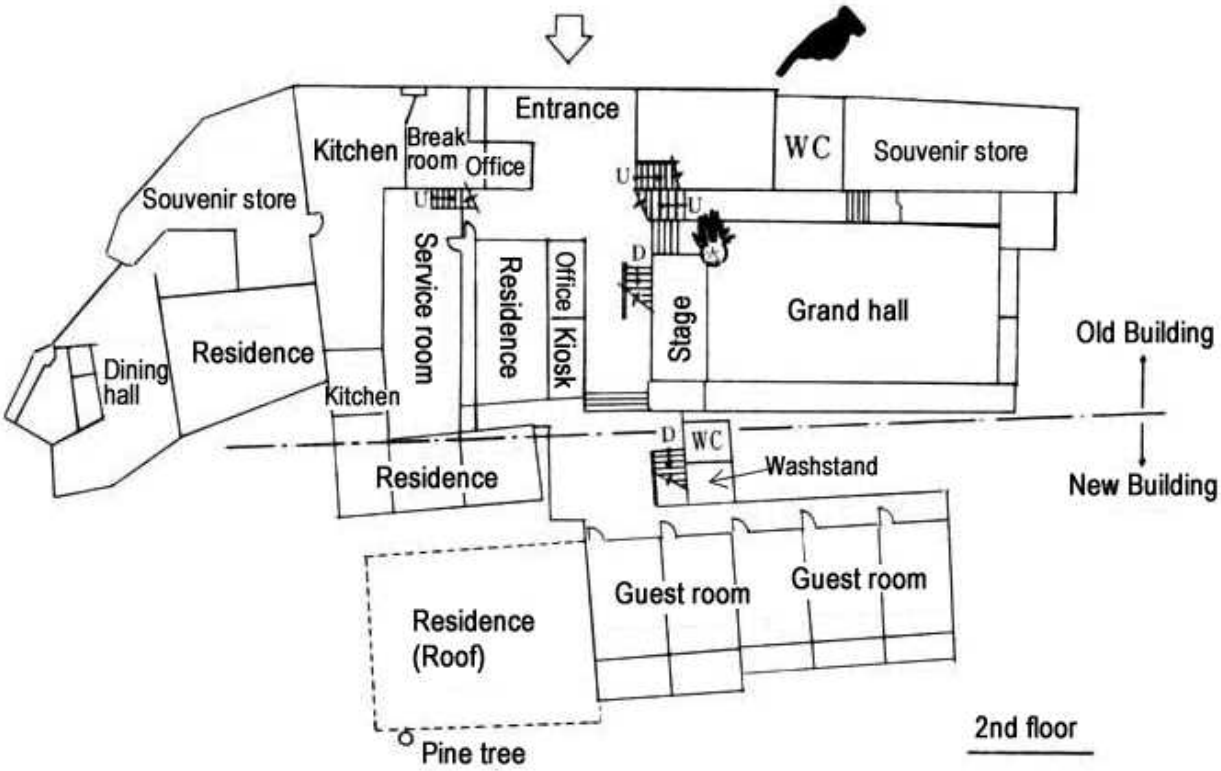
	Obstacles to Evacuation
Healthy individuals 16 (Drunk persons) Individuals in need of assistance Infants Elderly Handicapped Patients/ill persons	° No windows [ ] ° Barred openings [ ] ° Locked emergency doors (Exits) [ ] ° Alarm System [X] (Poorly controlled, Malfunctioned, **Not Installed**) ° Power outage [ ] ° Other [ ]

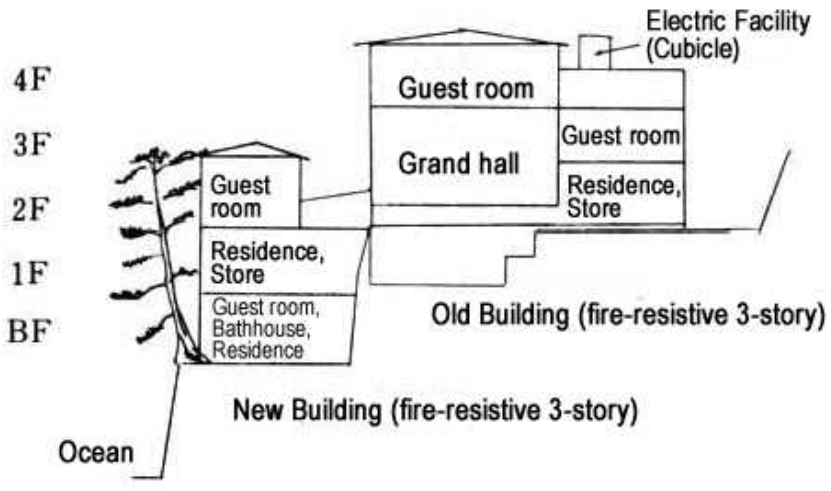
As mentioned, 16 of the 19 guests staying on the 4th floor were killed in this fire. Of the 16 fatalities, 7 of them were found in the hallway; the rest (8) were found in the guest rooms. The 1 other person was the guest staying in the *Chidori* Room on the 4th floor. S/he fell from the roof when jumping from the window onto the roof with 3 other friends (the friends survived).

IV. Issues and Lessons Learned

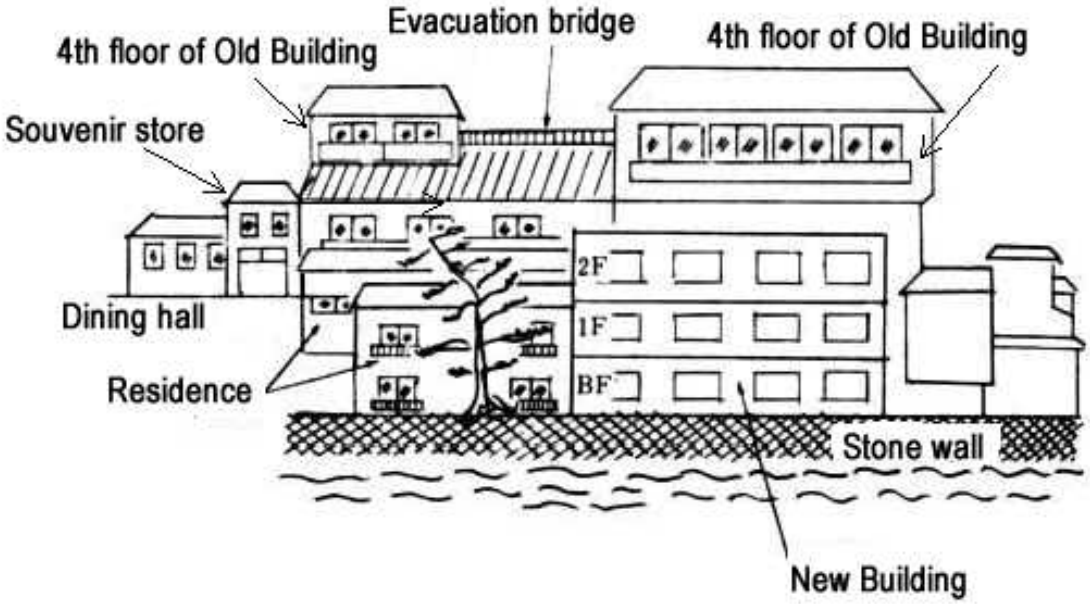
1. To protect lives in a hotel fire, it is important to detect the fire as early as possible and to do this, the hotel should have installed an automatic fire detection system without delay. In addition, it is necessary to improve security measures and maintain all necessary manpower and equipment.
2. The Japanese Building Standard Law requires a 2-way evacuation route in structures as large as this hotel. However, it would be more proactive if each room had a 2-way evacuation route by means of evacuation hardware such as rope ladders.
3. Before making any addition or modification to an existing building that holds an unspecified number of people, the existing portion should be reviewed in order to preserve a simpler evacuation route and/or to ensure fireproof or fire-preventive means, and this should be reinforced by direction or guidance from governmental or regulatory authorities. In addition, building owners should be advised to maintain a consistent plan that is also applicable to future additions and modifications.
4. In this fire, the firefighters could not utilize seawater because the accessible space was very limited for the fire vehicle to park and pump it up; therefore, effective space should be secured along the coastline for firefighting operations.

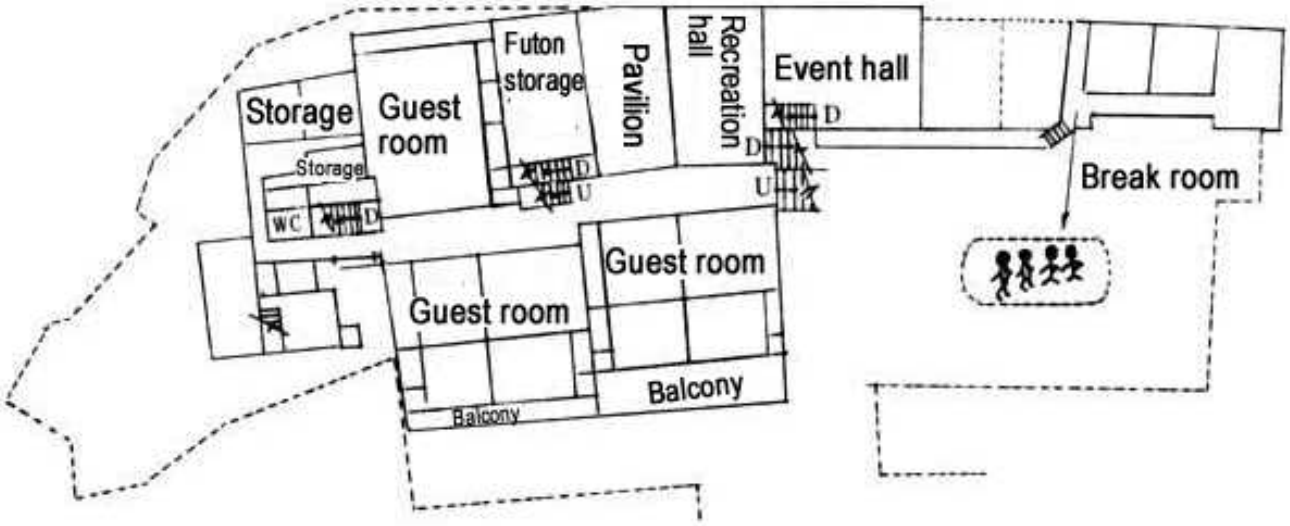

Guest room
Jumped
Escape route
Guest room
Store
Residence
Fire
Guest rm
Guest room
Grand hall
Residence


Entrance
Kitchen
Break room
Office
WC
Souvenir store
Souvenir store
Service room
Residence
Office
Kiosk
Stage
Grand hall
Old Building
Dining hall
Residence
Kitchen
WC
Washstand
New Building
Residence
Guest room
Guest room
Residence (Roof)
Pine tree
2nd floor


Electric Facility (Cubicle)
4F
3F
2F
1F
BF
Guest room
Guest room
Grand hall
Guest room
Residence, Store
Residence, Store
Guest room, Bathhouse, Residence
Old Building (fire-resistive 3-story)
New Building (fire-resistive 3-story)
Ocean

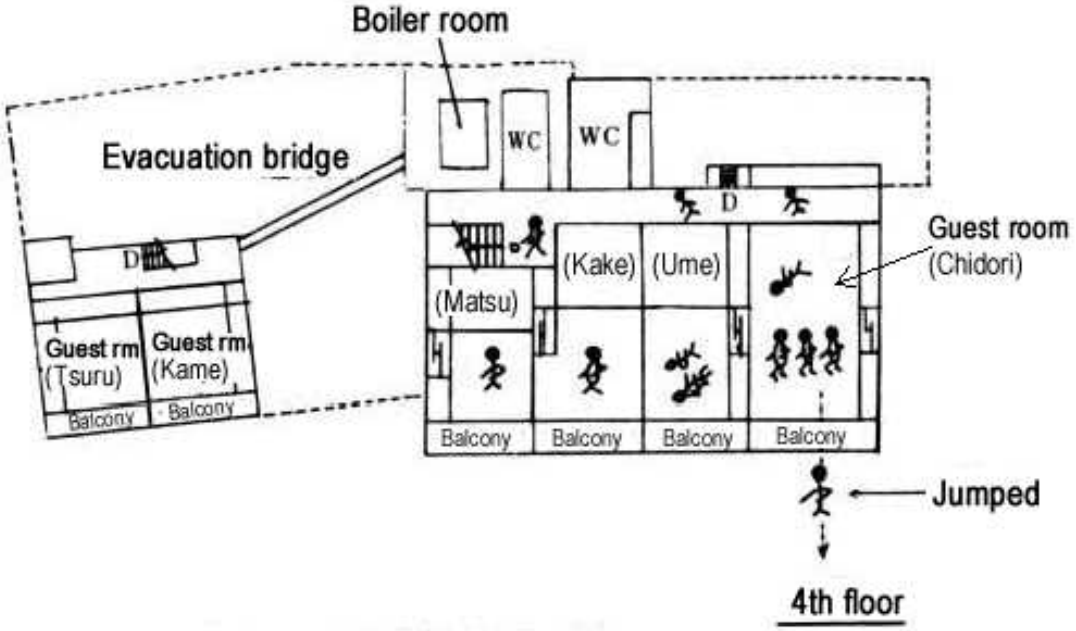
South-side view





3rd floor

Note: ····· denotes the portion of the 2nd floor



4th floor

Note: ····· denotes the portion of the 3rd floor