3.1 Fire research and protection of built heritage - report on recent projects and their possible impact concerning “integrated design”

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4 Departements :
Architecture / Interior Architecture / Townplanning /
Conservation Built Heritage

Former research : participation in Cost C17
5th FP project ‘Fire Tech’

Ongoing research

Expectations from Cost IFER

1

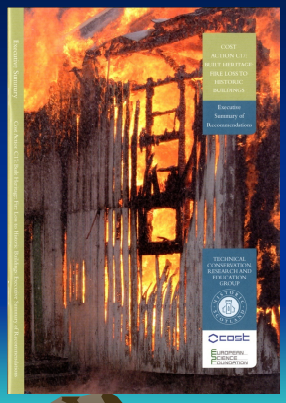
European Science Foundation: COST Action C17
Built Heritage: Fire Loss to Historic Buildings

Trondheim, Norway following the December 2002 fire.

Each day one historic building in the EU is damaged by fire

Water sprinkler installation, Schonbrunn Palace, Vienna

Former Research : Cost C17 ‘Built Heritage – fire loss to historic buildings
(Chair : Ingval MAXWELL)



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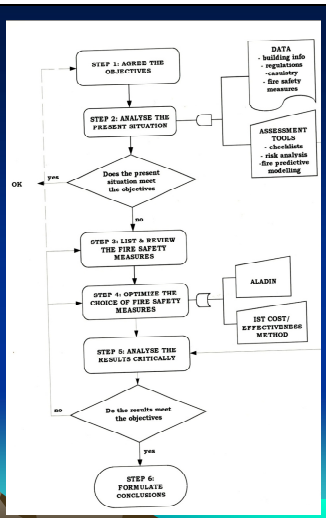
Former research : FIRE TECH
Fire Risk Evaluation to European Cultural Heritage
(chair : prof. Paul VANDEVELDE)



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- **Fire Risk Calculation**

- 1. OBJECTIVES
- Protect occupants / firemen / b
- building / content / environm
- 2. STRATEGIES
- Reduce probability of fire start
- facilitate fire fighting
- facilitate egress
- limit fire propagation
- ….
- 3. MEASURES
- M1 -> M19
- - reaction to fire
- - Rf of structure
- - Rf of partitions
- - Access
- - smoke control
- - …
- - salvage management
- - education
- - periodic inspection

5.1. General example of runs with ALADIN

Figure 5 shows the hierarchy structure for an “academic” fire safety/protection study. The thickness of the arrows is proportional to the given input weights (from 1 to 9). The weights are just given as an example and are not absolute.

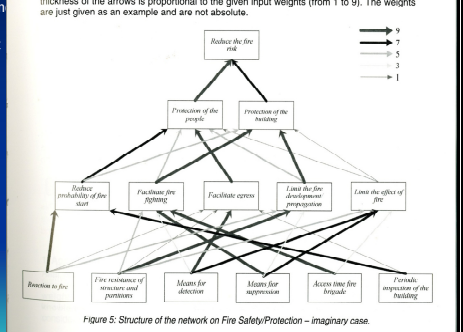


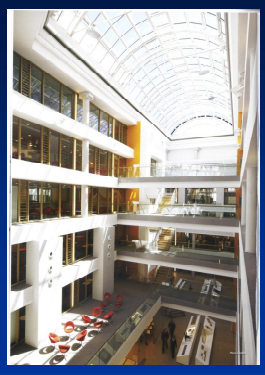
Figure 5: Structure of the network on Fire Safety/Protection – imaginary case.

5

- Ongoing project(s) / Expectations COST IFER
  WG 3 : Integrated design

- Dr.thesis :”Assessing daylight and fire safety in the integrated architectural design of Atria”

- Handbook for improvement of fire safety in heritage buildings.
  Design Manual of architectural and structural detailing (materials / form / design) (based on case-studies and good practices)



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