ESF COST Action C17: Fire Loss to Historic Buildings

The main objective of the Action was the definition at a European level of the degree of Loss to the Built Heritage to the Effects of Fire, and for the proposal of remedial actions and recommendations to combat such loss, using minimal invasive techniques.

During 2003 - 2008 the Action resulted in the subsequent publication of 18 related reports on the topic:

- 10 supported by Historic Scotland
- 4 by Riksantikvaren, Norway
- 1 each in Bulgaria, Slovenia, Switzerland, and Italy

Austria	Netherlands
Belgium	Norway
Bulgaria	Poland
Denmark	Slovenia
Finland	Spain
France	Sweden
Hungary	Switzerland
Israel	Turkey
Italy	UK
Macedonia	[USA + Russia]
[Baltic States]	

Ingval Maxwell OBE
DADun RIBA FRIAS CAABC ACA FSAScot

Fire and Flood in the Built Environment: Keeping the Threat at Bay
COTAC Conference, London: 20 November 2014

Consider how long will it take to respond to an emerging incident?

A basic question for Historic Property Owners:

What do you want left after your fire?

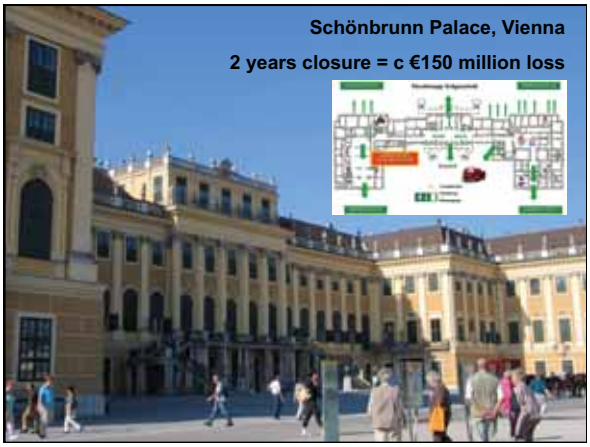
Hampton Court 1986
6 year rebuild

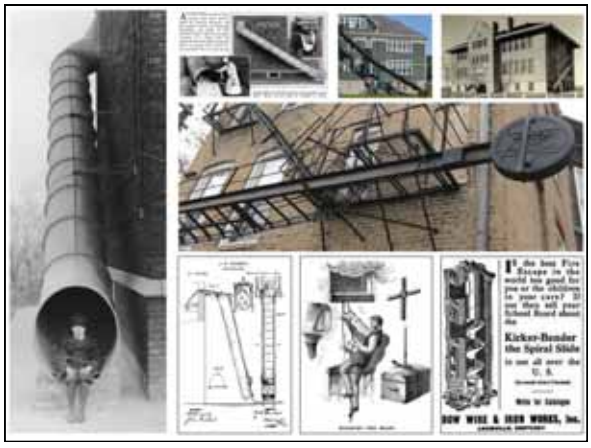
Windsor Castle 1992
€56 m 5 year rebuild

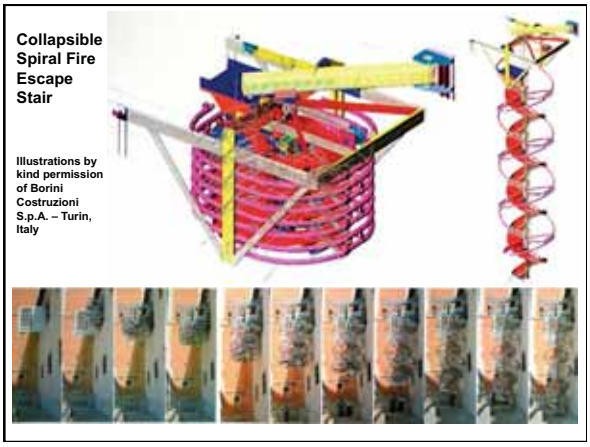
Hofburg Palace 1992

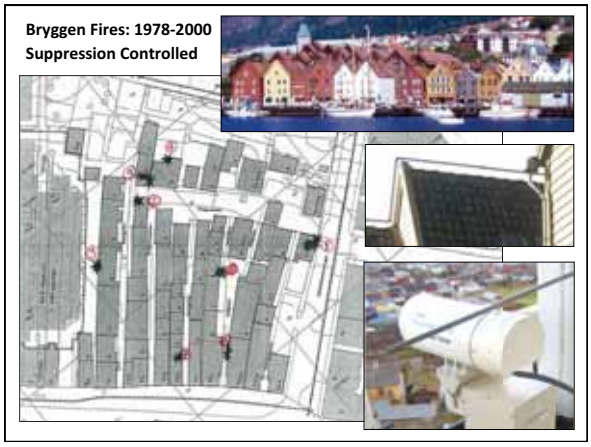
Some Fire Statistics

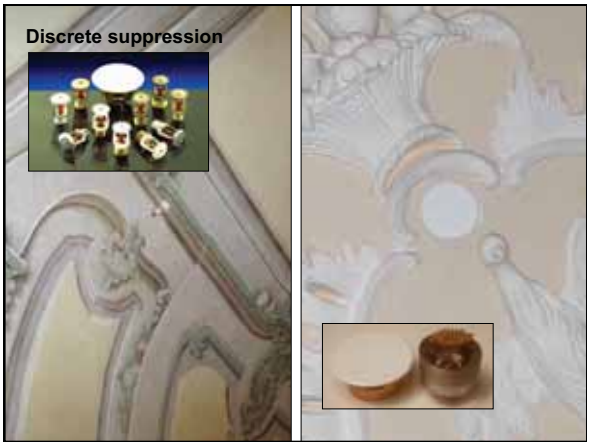
- **US Museum losses**
  1999 - 2002: 60 museum fires losses at cost of $2.25 million
- **UK churches 1994/ 2004**
  392 fire incidents
- **Scotland Listed Buildings**
  c450 fire incidents per annum
- **England + Wales schools**
  c1,300 schools fire damaged/ annum costing €105 m/annum affecting c100,000 pupils
- **UK Quality of life**
  900 people murdered and 700 killed by fire/annum


Schönbrunn Palace, Vienna
2 years closure = c €150 million loss

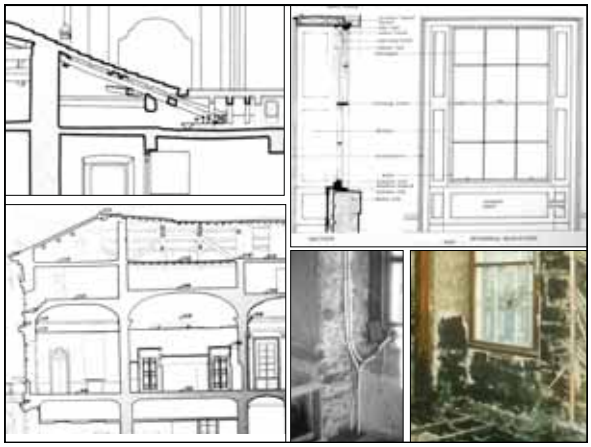

Kicker-Bender
the Spiral Slide
DOW WIRE & IRON WORKS, Inc.


Collapsible Spiral Fire Escape Stair
Illustrations by kind permission of Borini Costruzioni S.p.A. – Turin, Italy


Bryggen Fires: 1978-2000
Suppression Controlled


Discrete suppression

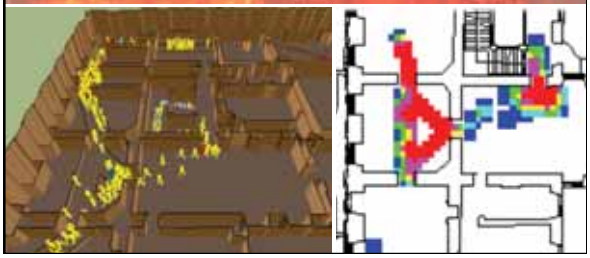

OxyReduct



1: Fire systems should be essential to meet the objectives of the protection of life, building and contents

2: Installed systems should be appropriate to the risks being considered

3: Installed systems and approach should be compliant with legislation



4: Retrofitting fire systems should involve minimal intervention on the historic fabric and its detail

5: Installed systems should be designed to sensitively integrate with the historic fabric and its detail

6: Fire systems should be reversible: adopting a "plug-in plug-out" installation philosophy

Key questions and issues

- Are we serious about protecting Europe's patrimony?
- Are we content to remain in the dark about fire loss statistics to the built heritage and its contents?
- Do we want to continue to let the heritage burn?
- How do we address the heritage complacency?

- Building protection automatically improves life safety
- Retrofitting modern technology helps assure building safety
- Immediate suppression is less damaging than full scale fire fighting
- Much can be achieved through mutual collaboration if a balanced, sensitive and strong lead is planned for and adopted, understanding the historic fabric, its value and authenticity