



# Fire/Disaster Management: Prevention Over Recovery In Protecting Cultural Heritage

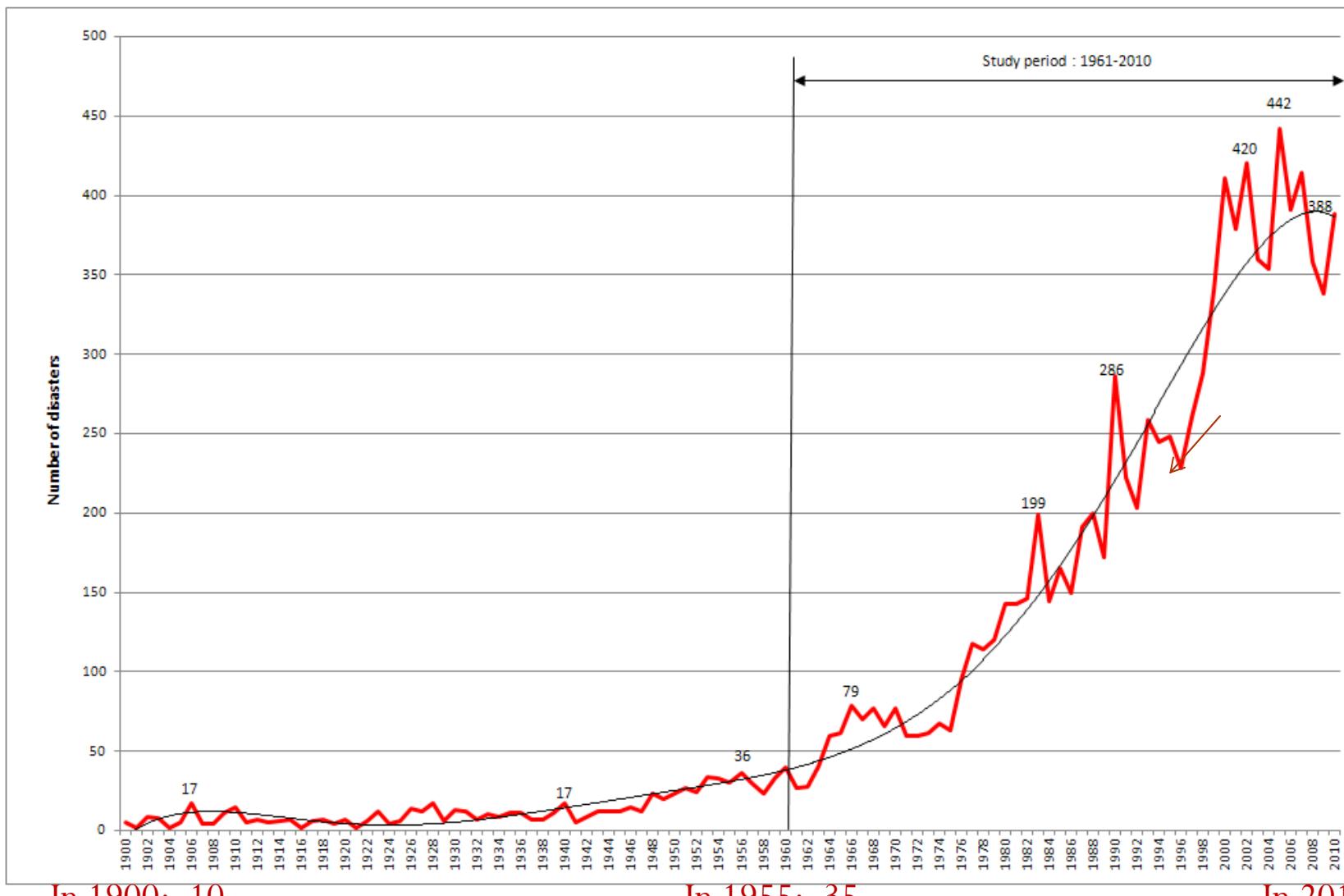
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# The Impact of Disasters



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## Occurrence of natural disasters



In 1900: 10

In 1955: 35

In 2012: 318

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## Occurrence of natural disasters



In 1900: 10

In 1955: 35

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# The Impact of Disasters

## Losses to Cultural Heritage

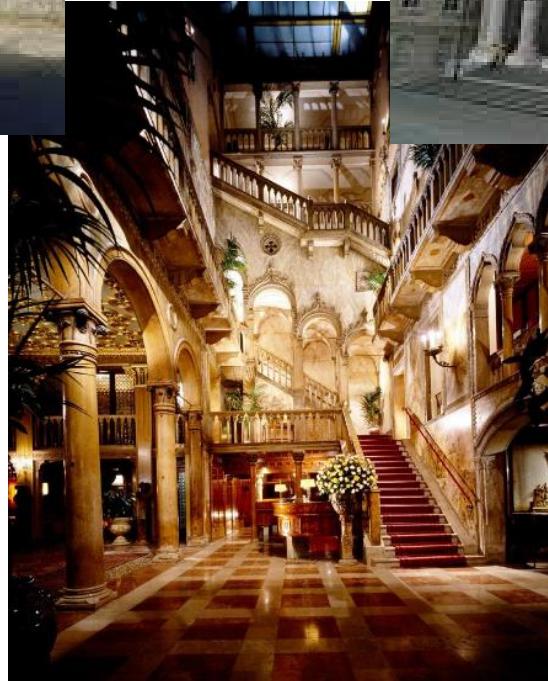
- Challenging to
  - obtain data
  - quantify losses
- However, we are losing our heritage
  - Large scale events
  - Single building/site events



# **What is Cultural Heritage??**

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Tangible cultural heritage: immovable



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(AFF/GETTY IMAGES)



# What is Cultural Heritage?

Tangible cultural heritage: immovable

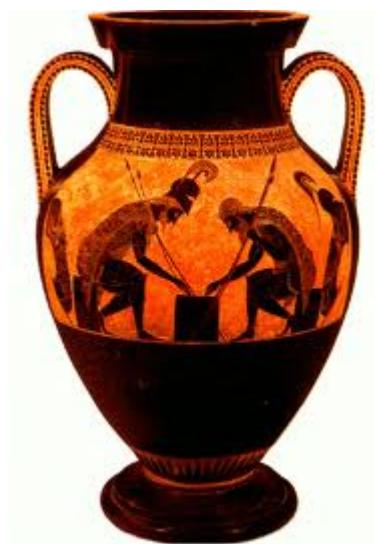


# What is Cultural Heritage?



# What is Cultural Heritage?

Tangible cultural heritage: movable



# What is Cultural Heritage?

Intangible cultural heritage (oral traditions, performing arts, rituals)



# What is Cultural Heritage?

Natural heritage



# What is Cultural Heritage?

Tangible cultural heritage: Underwater



**Drivers of Change  
And the Need to  
Protect Our Cultural Heritage**

## Natural Disasters

# Drivers of Change 1: We continue losing our Heritage to Disasters



**Earthquakes**



**Volcanoes**



**Floods**



**Avalanches/Landslides**

# Natural Disasters

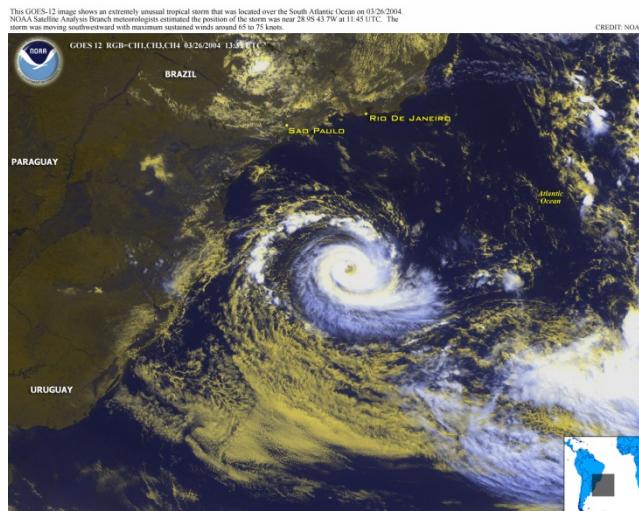
## Drivers of Change 1: We continue losing our Heritage to Disasters



Fire



Tsunamis



Hurricanes



Wildfires

## Man-Made Disasters



Buddhas of Bamiyan



Kasubi Tombs



Egyptian Scientific Institute



Tombs, Timbuktu

## During Disasters

# Drivers of Change 1: We continue losing our Heritage to Disasters



Insufficient Disaster Management Plan



# Drivers of Change 1: We continue losing our Heritage to Disasters

## Post Disasters



Post Disaster



Premature Demolition

## Drivers of Change 2: We Need to Protect Our Collective Heritage

### a. Significance/role

Spiritual, Cultural, Social, Economic-

- Spiritual center
- Serves as physical anchors within a community
- Maintain community pride and a sense of belonging
- Educational facilities
- Economic/cultural tourism
- Area of refuge in emergency situations.



## Drivers of Change 2: We Need to Protect Our Collective heritage

### b. One Of a Kind



# Drivers of Change 3: Cost Savings

- **World Bank:**

*For every dollar invested in disaster risk reduction, between four and seven dollars are saved in the long run.*

- **Peru:**

Incorporating risk reduction into development investments led to a cost-benefit ratio of 1:37.

(UNISDR 2009)



## Drivers of Change 3: ~~Cost Savings~~ → Investment

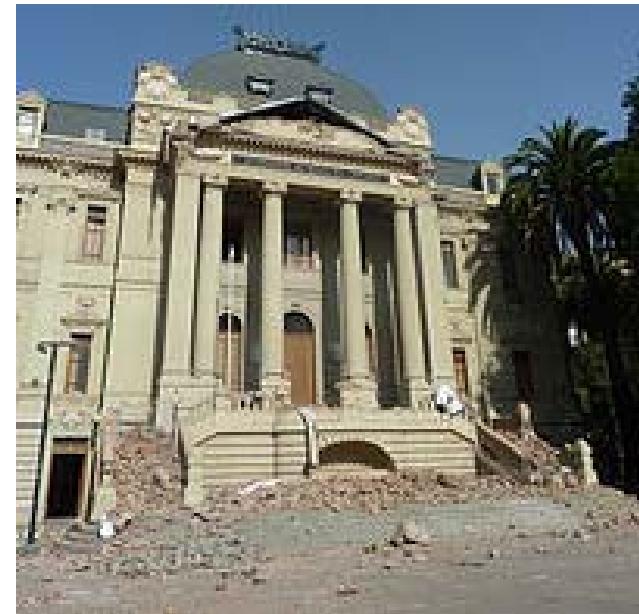
*'Disaster mitigation and prevention are an investment, not a cost'*

(UNISDR 2009)

## Drivers of Change 4: Prevention Protects

### Chile:

- 8.8-magnitude earthquake in 2010
- less than one person out of every 600 affected was killed.
- effective building codes and other DRR measures implemented



### Haiti :

- earthquake 500 times less powerful,
- killed one in every 15 persons affected.



## Drivers of Change 5: Alignment

- Hyogo Framework for Action
- Millennium Development Goals
- UNISDR

*... ‘proceed from protection against hazards to the management of risk through the integration of risk prevention into sustainable development.’*

*UNISDR*

## Drivers of Change 6: Support Cultural Tourism

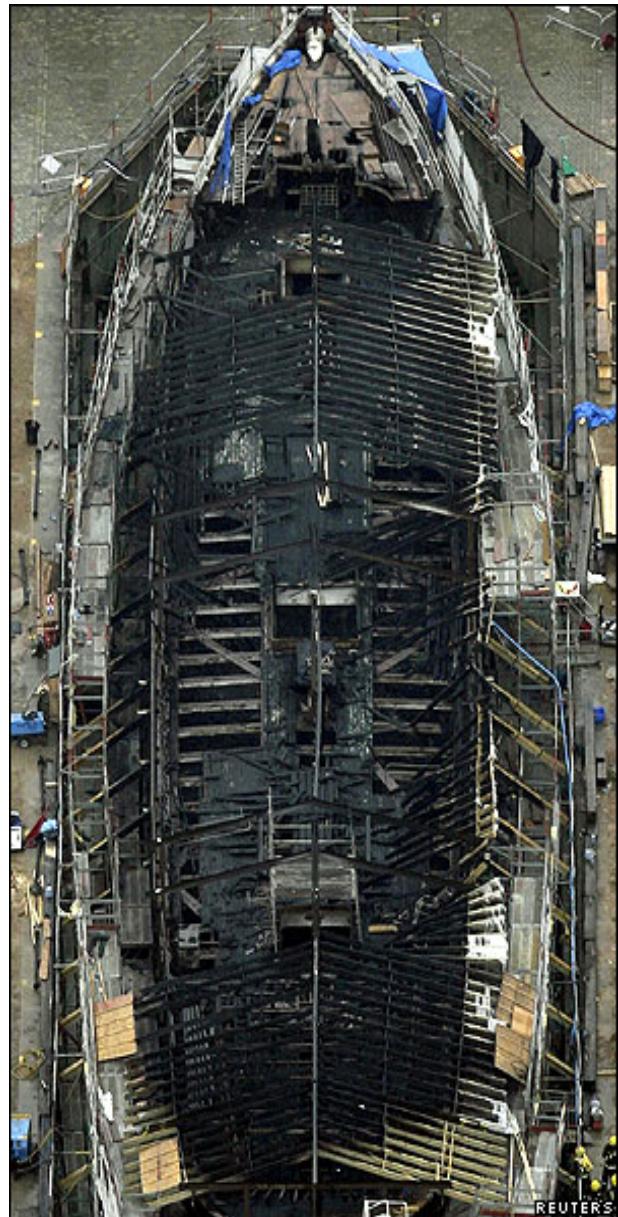


Cutty Sark (1869) Fire: 2007

Fire related damage: USD 10 mil

Visitor revenue (2yrs): USD 40 mil  
USD 50 mil +

*Local restaurants, souvenirs, hotels, stores, etc.*



Promoting  
Prevention  
Over  
Recovery

Promoting  
Prevention  
Over  
Recovery

How???

# Promoting Prevention over Recovery

## 1. Creating Awareness

Stakeholder	Current Role	Potential Role	What motivates them?	How to engage them?
Governments – national, regional, local				
Civil (emerg response)				
Military				
Financial (banks)				
Advocacy/Project Management				
Technical experts				
Communities				
Owners/Residents				
Media				
Organizations				
Other				

## Promoting Prevention over Recovery

### 2. Creating Awareness → Capacity Building

Stakeholder	Current Role	Potential Role	What motivates them?	How to engage them?
Governments – national, regional, local				
Civil (emerg response)			<b>Information needs to be:</b>	
Military			<b>•tailored</b>	
Financial (banks)			<b>•motivating</b>	
Advocacy/Project Management			<b>•easy to understand</b>	
Technical experts			<b>•accurate</b>	
Communities				
Owners/Residents				
Media				
Organizations				
Other				

## Promoting Prevention over Recovery

### 3. Engaging Governments & Policy Makers

- Responsible in part for supporting:
  - development of codes, standards and guidelines
  - implementation
  - design oversight and reviews
  - enforcement
- Tax incentives.
- etc

## Promoting Prevention over Recovery

### 4. Implementation and Demonstration through Project Work

- Teach through demonstration and hands-on experience
- Actual projects to supplement reading and theoretical analyses.
- Develop Long Term Sustainable Solutions
  - solutions supportable locally - knowledge, experience, equipment, materials and tools to maintain/service these.
  - management/maintenance plans for long term



## Promoting Prevention over Recovery

### 5. Enhancing the Role of Media

Media can have a substantial impact



## Promoting Prevention over Recovery

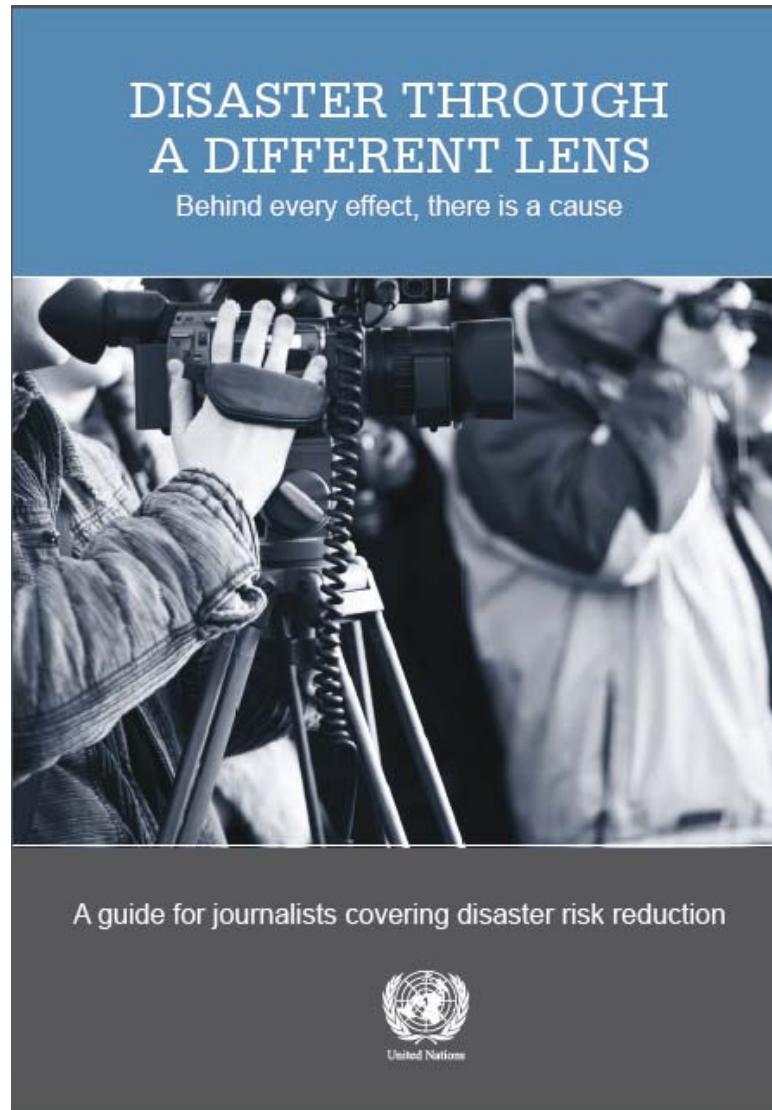
### 5. Enhancing the Role of Media

Media can have a substantial **POSITIVE** impact on

- disaster risk reduction stories and creating awareness—
  - help communities understand what it is that makes them vulnerable,
  - what communities can do to increase capacities to prevent and mitigate disasters,
  - how to cope with disasters.
- root causes behind disasters- Why disasters happen? How can we prevent them?
- disaster's social dimensions- Who is responsible for 'hazards 'turning into 'disasters'?

## Promoting Prevention over Recovery

### 5. Enhancing the Role of Media



## Promoting Prevention over Recovery

### 6. Finding and Engaging Resources & Technical Experts

- Experts need to be technically competent, and also open to
  - understanding local cultures
  - local methods, materials and resources
  - establishing sustainable solutions
  - limiting the impact of solutions on structure and aesthetics
  - providing cost-effective and low cost/high impact solutions.

## Promoting Prevention over Recovery

### 6. Finding and Engaging Resources & Technical Experts

#### Who is ICOMOS/ICORP??

- one of the International Scientific Committees of ICOMOS (International Council on Monuments and Sites)
- Focusing on Risk Preparedness of Cultural Heritage
- promotes protection of cultural heritage from effects of disasters and armed conflict.
- Collaborates with international, national and non-governmental organisations



## Promoting Prevention over Recovery

### 6. Finding and Engaging Resources & Technical Experts



United Nations  
Educational, Scientific and  
Cultural Organization

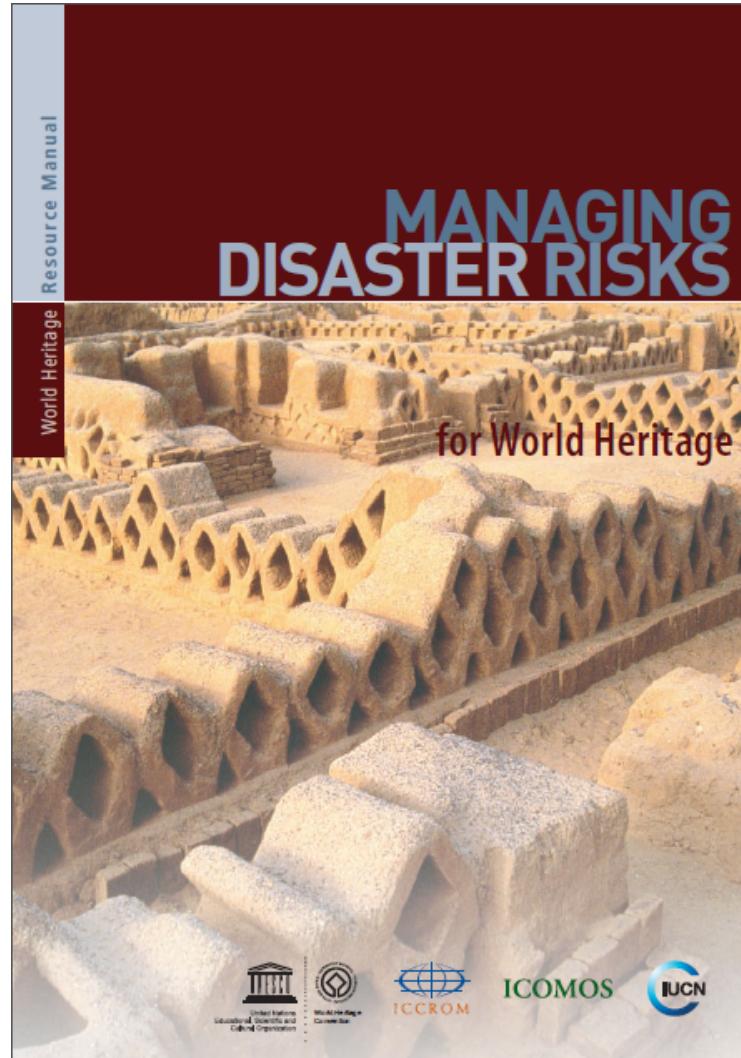


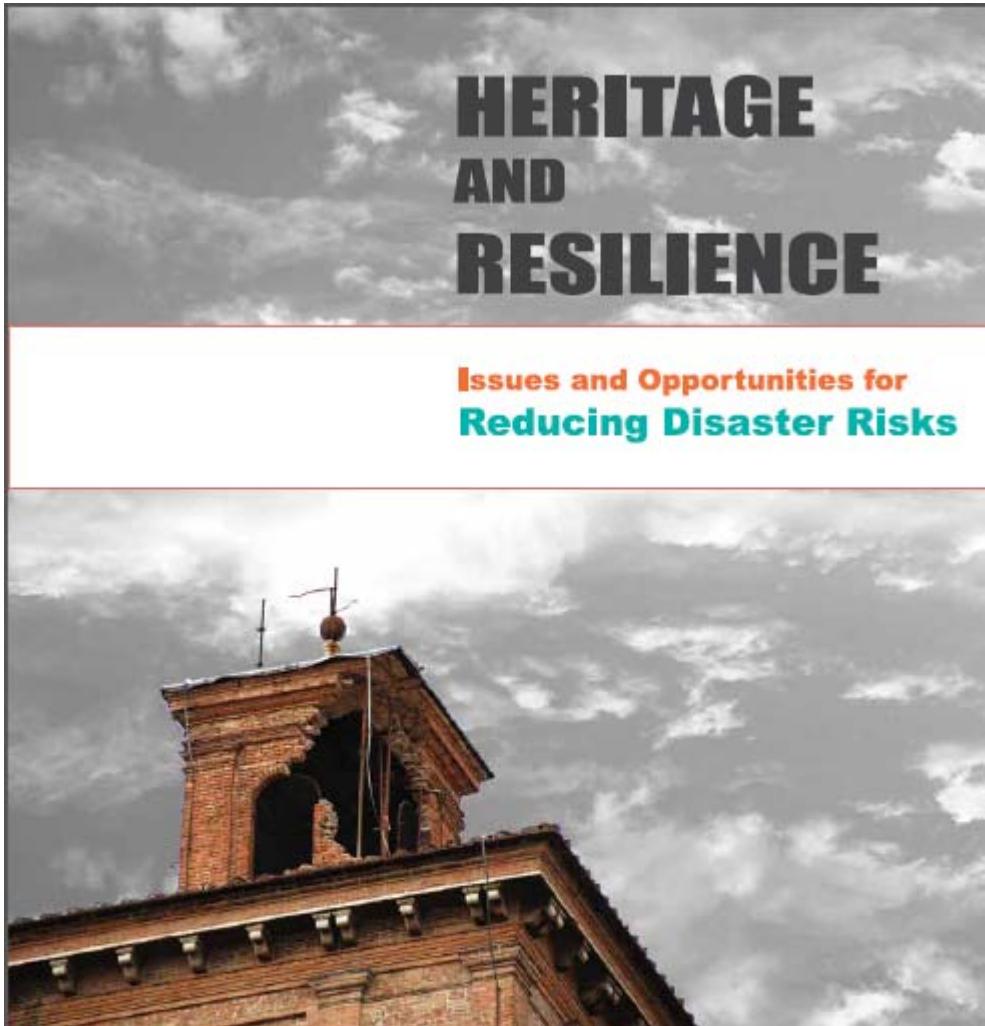
World Heritage  
Centre

Training  
Capacity building  
Raising awareness  
Projects

## Promoting Prevention over Recovery

### 6. Finding and Engaging Resources & Technical Experts





MARSH



## Featured Event

### Heritage and Resilience

Date: Today

Time: 11.15a-12.45p

Place: Room 3, Level 0

# Conclusions

- Protecting Heritage Benefits a Communities' Resilience.
- Incorporate Cultural Heritage into Disaster Risk Management Plans
- A culture of '*prevention over recovery*' has numerous benefits, including saving lives and protecting our cultural heritage.
- Technical experts and resources are available to support this.





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