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

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The Impact of Disasters
The Impact of Disasters

Occurrence of natural disasters

In 1900: 10
In 1955: 35
In 2012: 318

Study period: 1961-2010
The Impact of Disasters

Occurrence of natural disasters

- Lives lost: > 70,000/yr
- Lives Impacted: 232,000,000 people/yr
- Property cost: 186bn USD/yr
The Impact of Disasters

Losses to Cultural Heritage

• Challenging to
  o obtain data
  o quantify losses

• However, we are losing our heritage
  o Large scale events
  o Single building/site events
What is Cultural Heritage??
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Tangible cultural heritage: immovable
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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
Drivers of Change 1: We continue losing our Heritage to Disasters

- Earthquakes
- Volcanoes
- Floods
- Avalanches/Landslides
Drivers of Change 1: We continue losing our Heritage to Disasters

Natural Disasters

- Fire
- Tsunamis
- Hurricanes
- Wildfires
Drivers of Change 1: We continue losing our Heritage to Disasters

Man-Made Disasters

- Buddhas of Bamiyan
- Kasubi Tombs
- Egyptian Scientific Institute
- Tombs, Timbuktu
Drivers of Change 1: We continue losing our Heritage to Disasters

During 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
• Millenium 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 (2 yrs): 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

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<th>Stakeholder</th>
<th>Current Role</th>
<th>Potential Role</th>
<th>What motivates them?</th>
<th>How to engage them?</th>
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## Promoting Prevention over Recovery

### 2. Creating Awareness ➔ Capacity Building

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**Information needs to be:**

- tailored
- motivating
- easy to understand
- accurate
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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
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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
5. Enhancing the Role of Media

Media can have a substantial impact

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

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

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5. Enhancing the Role of Media
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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.
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

Training
Capacity building
Raising awareness
Projects
Promoting Prevention over Recovery

6. Finding and Engaging Resources & Technical Experts
Role of ICOMOS-ICORP towards Reducing Disaster Risks to Cultural Heritage

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

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