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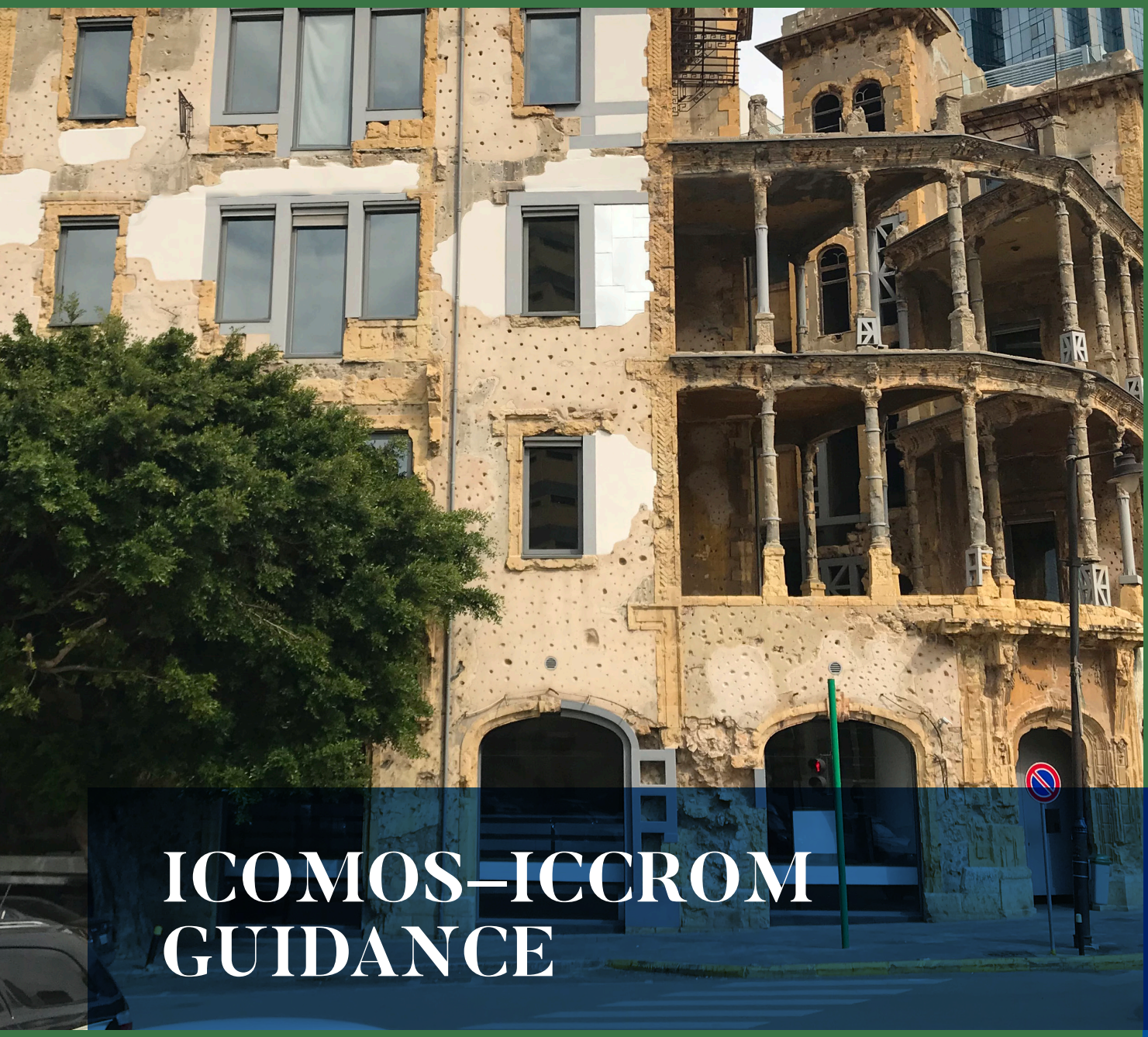

ICOMOS–ICCROM GUIDANCE

ON
POST-DISASTER AND POST-CONFLICT RECOVERY AND RECONSTRUCTION

FOR
HERITAGE PLACES OF CULTURAL SIGNIFICANCE AND WORLD HERITAGE CULTURAL PROPERTIES

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Cover image: Bayt Beirut museum and urban cultural center. *(Source: Zaki Aslan)*.

Foreword

The scale, persistence and nature of destructive events of recent times have heightened awareness of the vulnerability of cultural inheritance – heritage places of significance and World Heritage properties across the world are under threat. The concern of the World Heritage Committee and that of other international bodies active in the field of cultural heritage protection is focused on the resulting challenges for recovery and possible reconstruction. These challenges have reinforced the commitment by international organisations and local populations to the common purpose of preserving and transmitting places of significant cultural value to future generations.

In 2015 the World Heritage Committee emphasised the importance of 'a post-conflict strategy for reconstruction of damaged World Heritage'. The means to be considered would include technical assistance, capacity-building, and the exchange of good conservation and management practices. In 2016 the Committee tasked the Advisory Bodies with developing guidance on the reconstruction of such properties. A range of initiatives has emerged to address different aspects of the challenges posed. This Guidance document builds on the initiatives of ICOMOS and ICCROM and those of other bodies, and extends the collaboration of the ICOMOS–ICCROM Project 'Analysis of Case Studies in Recovery and Reconstruction', published in 2021. In this regard, we want to express our sincere gratitude to all colleagues, including ICOMOS former President Toshiyuki Kono, who worked on these seminal initiatives and commented on the draft versions of this new work.

This document relates to issues of reconstruction within the processes of post-trauma recovery. In full realisation of the many dimensions of trauma and recovery, the Guidance relates to the concerns of the cultural heritage field generally and specifically those of World Heritage properties. It acknowledges the particular challenges for those places where action is required to give back homes to people, and where heritage might be an agent of human-rights-based social and economic recovery. It asserts the need to integrate cultural heritage protection within the broad framework of post-trauma recovery actions and across the spectrum of issues encountered.

Where World Heritage properties are concerned, reconstruction brings into focus the attributes that convey Outstanding Universal Value (OUV). At the same time, it is expected that the framework set out in the document may have wider application and may assist damaged heritage places in identifying a wide spectrum of possibilities for their future recovery.

The experiences of the recent past have also drawn attention to the increasing threat to societies and their cultural heritage that is posed by climate change. It is hoped that this document may also stimulate continuing attention to the deep challenges posed to conventional approaches to the protection and transmission of this inheritance.

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Introduction

Experience has shown that loss and damage to cultural heritage arising from catastrophes cause or exacerbate personal and social trauma.[1] Often the trauma caused by that loss is also the first trigger for pursuing the physical reconstruction of damaged or destroyed heritage places. Guidance for the recovery of cultural heritage is needed, and this document addresses that need.

This Guidance document is not intended to be prescriptive. It is not a manual nor a toolkit. Rather, it provides a framework through which the recovery of heritage places can be supported and harnessed in coming to terms with and overcoming the trauma associated with destruction and loss.

Integrating the recovery of damaged heritage places within general recovery processes is crucial for sound and lasting post-event recovery processes. Hence, to ensure that the recovery of heritage places can be integrated into those larger processes, this Guidance also makes reference to guiding documents related to broader post-event recovery.

In addressing the recovery and reconstruction of heritage places, the Guidance builds upon the body of thought and practice developed by ICOMOS and ICCROM over decades of their activity. Existing conservation theoretical documents, guidelines or toolkits remain valid, and reference is made to them whenever relevant and useful.

Fig. 1. Villagers mark the destruction of their local church, Temple of Nuestra Señora de La Asunción de Santa María de Apaculpo, San Luis Potosí, Mexico. *(Source: Renata Schneider)*

[1] In the 'Policy on Cultural Heritage', the Prosecutor of the International Criminal Court presents cases that victims of crimes against or affecting cultural heritage express the pain and trauma experienced due to heritage destruction. https://www.icc-cpi.int/sites/default/files/itemsDocuments/20210614-otp-policy-cultural-heritage-eng.pdf

The Guidance: Aim, purpose, scope, target audience, structure

Aim

This Guidance aims to help relevant actors affected by destruction at heritage places of cultural significance to set up sound decision-making processes for recovery and reconstruction. It sets out a framework within which thorough, informed and participative decision-making can be undertaken in recovery. Recovery is understood to include reconstruction, involving tangible and intangible attributes of heritage places and World Heritage properties. The Guidance aims to suggest a context-attentive recovery approach that enables the perpetuation of the significance of heritage places and Outstanding Universal Value (OUV) of World Heritage properties to the greatest extent possible.

Purpose

This Guidance elaborates on recovery and reconstruction as processes that require planning, open discussion, preparatory research and thorough documentation.[2] Reconstruction and recovery need to engage affected communities and assist people in healing, rebuilding social cohesion, enhancing resilience and creating conditions for sustainable development.

Scope

This document recognises the widespread need for Guidance to assist damaged heritage places of cultural significance and sets out to provide such support. However, it maintains a focus on World Heritage properties that as a result of traumatic events have lost part or all of those attributes that convey their OUV, and where there is often a desire – if not a quasi-imperative – to recover what has been lost through some forms of reconstruction.

The Guidance recognises the broader context of disaster risk management planning and the related guiding documents; however, this document focuses on post-event recovery and reconstruction.

The Guidance provides a framework that helps in articulating the process for making decisions on heritage recovery following catastrophic events.

The Guidance does not elaborate on the differing characteristics of destruction through natural and human causes. It recognises that differences exist, and that these influence the recovery process and the possible forms of reconstruction.

Target audience

The Guidance is primarily addressed to experts working in heritage conservation and all those with responsibility for the protection and conservation of the heritage place on the ground. In the World Heritage context, it is addressed to States Parties, their relevant authorities and implementing agencies, and technical staff in the relevant sectors. It may also assist a wide range of community actors, including civil society, in organising responses to catastrophe and recovery.

Structure of the Guidance

The Guidance identifies key factors in a fruitful recovery process, discusses their interrelationships and organises them into a comprehensive framework. The framework is thematic and considers factors related to the heritage place and the destructive events, factors related to organisation and factors related to outcomes.

The Guidance makes the conscious choice not to address these factors according to the sequence usually followed in documents describing recovery processes, for two related reasons: firstly, the occurrence of catastrophes and related recovery actions rarely follow linear sequences; and secondly, many of these factors need to be addressed at different stages of the recovery process. Some, such as capacity building, documentation and population engagement, are cross-cutting factors to be taken into account in preparatory phases and throughout responses to catastrophe.

The Guidance also explains the concepts that it uses (see Key Concepts, page 09) and sets out the principles that apply throughout the recovery process.

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[2] *ICOMOS Charter – Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage, 2003*. https://www.icomos.org/en/about-the-centre/179-articles-en-francais/ressources/charters-and-standards/165-icomos-charter-principles-for-the-analysis-conservation-and-structural-restoration-of-architectural-heritage

Updates

Reflection upon post-trauma recovery and reconstruction of heritage places of cultural significance continues to evolve due to the rapid change in nature, frequency and intensity of disasters, as well as the development of relevant technologies and capacities; therefore, ICOMOS and ICCROM intend to maintain the Guidance as a document open to periodic review and update as needs emerge.

Key Concepts

For the purpose of this Guidance, key concepts are to be understood as outlined below:

Recovery

'Recovery' refers to the attainment of a stable, healthy state after experiencing trauma, damage or loss. It involves economic, social and environmental aspects related to cultural heritage, aimed at enhancing inclusive and sustainable development.

Recovery does not mean a return to a previous condition that existed prior to the traumatic event. It involves achieving a new condition that has grown from what has been endured.

For heavily damaged or destroyed heritage places or properties, recovery means re-establishing the capacity of surviving attributes, including fragmented ones, to convey heritage significance or Outstanding Universal Value (OUV), and re-establishing the conditions under which these may be conveyed.

Insofar as recovery concerns tangible heritage, it will include a range of interventions, such as emergency protection, consolidation, repair, restoration and reconstruction. Their appropriateness will depend on the nature and condition of the attributes that support the significance of the place, and on the need of the communities.

Recovery can also involve the revival and employment of intangible practices and expressions linked with the heritage place. Restoring and building capacities and heritage-based social relations has as its goal the resumption of a stable, healthy state after trauma, giving recovered heritage places appropriate use.

Reconstruction

'Reconstruction' means an action or process that aims at returning, to the extent that is possible, a destroyed or severely damaged heritage place to a previously known state of integrity while preserving the authenticity of as many attributes as possible.

Reconstruction is one of the strategies that may be adopted in maintaining or restoring the physical environment within the recovery process. Achieving this will involve the maximum retention of surviving material, and in certain circumstances, may involve adding new material where necessary to maintain or recover significance.

Trauma

The catastrophic destruction of a place has commensurate impacts on its inhabitants. The word 'trauma' is used to describe severe impacts that result from such events, whether caused by natural processes, by human agency or by the interaction between these. In addition to physical damage to people, such events may cause psychological, cultural and social disruption to individuals and communities caught up in them. The effects on populations of the destruction of cultural inheritance[3] can be equally profound.

The effects of trauma can include individual or collective inability to cope, leading to denial or loss of identity or memory. Such impacts may persist after the physical effects have been addressed. Depending on the nature, length and recurrence of traumatic events, traumas can affect individuals, groups, communities and entire societies – at local, national and international levels – and may be confined to one generation or extend across generations, with different intensities and durations of persistence. Recovery of cultural heritage often provides, or forms part of, coping mechanisms after severe trauma.

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[3] 'Inheritance' is used to indicate tangible and intangible assets that a society has inherited from the past; it is intended to be a more general term than the word 'heritage'.

Resilience

The term 'resilience' has been used to describe the ability of a heritage place to experience change without loss of its defining characteristics.

Resilience may also refer to people. The capacity of a community or population to come to terms with and work through the effects of catastrophic events is an essential element in recovery, in the awareness that post-event interventions cannot bring about a return to earlier, pre-event conditions.

Changes in relationships and habitats brought about by catastrophic events present major challenges, often impacting most severely on populations already in vulnerable situations, where challenging circumstances are a fact of everyday life. Recovery may draw on resources that are already depleted. The term 'resilience' must not be used to suggest that the primary responsibility for recovery somehow rests with the affected population, in the process reducing the role of wider society in supporting recovery.

When used in this document with reference to people, resilience is seen as a quality to be nourished in post-disaster intervention: moving on to a better life will require support within the broad recovery strategy over time. It will involve the creation of more sustainable living conditions, including living environments.

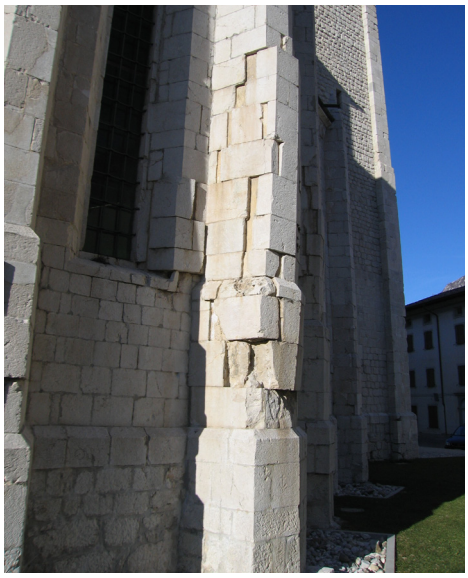
With regard to heritage places, recovery will mean improving their capacity to absorb or to adapt to the impacts of events in ways that maintain their significance and the living relationships that the places sustain. From the perspective of physical heritage, it may involve 'building back better'.

Building back better

'Building back better' in the heritage context includes ensuring that the issues that led to or contributed to the loss of a heritage place in a disaster (such as poor maintenance, poor drainage, inappropriate structural interventions, inappropriate use and/or abandonment, inoperative management plans) are addressed in the recovery.

In addition, new risks must be addressed (such as the effects of climate change, overdevelopment, obsolescence, the creation of conditions for overcrowding or abandonment, and poorly considered interventions that can affect the integrity of traditional structural systems).

Building back better in the heritage context may include the introduction of technologies and materials that improve the performance of structures in the face of ongoing and emerging challenges, while avoiding the risk of significantly affecting the authenticity of the attributes.



From left to right:
Fig. 2. The reconstruction of the Duomo di Venzone, Italy retained the deformations caused by the earthquake that destroyed the church. *(Source: Francesco Doglioni)*
Fig. 3. Patan, Nepal. Although the Charnarayana temple, Patan, Nepal had been completely destroyed by earthquake, the survival of the idol allowed the continuation of worship. *(Source: Kathmandu Valley Preservation Trust)*

Principles for a Sustainable Recovery Process

Recovery of cultural heritage vs general recovery processes

The effects of disasters stretch beyond the damage to the cultural significance of a heritage place, or to the attributes that support the Outstanding Universal Value (OUV) of a World Heritage property. They affect the social, environmental and economic structures that underpin the viability of cultures. The Guidance framework affirms that the recovery of cultural heritage has the potential to mitigate the negative effects of disasters and catastrophes.

The recovery of heritage places of cultural significance, including World Heritage properties, is often part of larger and more general recovery processes with their own goals and agendas. Coordinating heritage recovery with these larger processes is fundamental. However, heritage recovery pursues specific goals and is realised by respecting its own pace.

From top to bottom:
Fig. 4. The reconstruction of the Main House, or Muzibu Azaala Mpanga, engaged the local population in traditional and ritual practices in maintaining its religious and cultural significance. Kasubi Tombs complex, Kampala, Uganda *(Source: Jonathan Nsubuga)*
Fig. 5. Patan, Nepal. The devastation caused by the collapse of two mandapas in Patan square *(Source: Kathmandu Valley Preservation Trust, Nepal)*

Scope and scale of recovery of cultural heritage

The recovery of cultural heritage is multi-scalar: it may include architectural elements, whole buildings, complexes, cultural landscapes or historic cities and settlements. Helping to bring about recovery will demand strategic and practical interventions for the rehabilitation of tangible/physical and intangible attributes and the socio-economic processes of a heritage place. These must and will involve top-down and bottom-up approaches, integrated through multidisciplinary operations.

The active engagement of populations at personal and social levels is essential for the recovery of heritage places and the re-establishment of living environments of cultural significance. Such engagement requires stimulation and support.

Heritage recovery vs significance of heritage places/OUV of World Heritage properties

Widespread destruction may – but does not necessarily – cause the loss of the significance of heritage places or of the OUV of properties inscribed on the World Heritage List. However, the impacts of catastrophic events on people, properties and livelihoods do in most cases also bring about indirect impacts on cultural heritage: perceptions about heritage values may change, heritage practices may be impacted, and skills and know-how may be lost with their holders. It is from this perspective that this document refers to the notion of trauma and traumatic event.

Actions directed toward recovery and reconstruction need to preserve surviving attributes conveying the values of the heritage place, and may also contribute to the discovery or creation of new values. Most importantly, these actions need to avoid exacerbating the destructive effects of traumatic events.

To appraise whether heritage significance or OUV has been lost or significantly modified due to the impacts of a traumatic event on the attributes of the property, sufficient time must have elapsed between the event and the efforts deployed in the recovery.

Context-attentive recovery

All heritage places, including World Heritage properties, must be understood in their cultural and historical contexts, with adequate knowledge of their tangible and intangible attributes of heritage significance or of OUV, where relevant. The damage they may suffer is also to be understood from these perspectives.

The recovery of heritage places must take into consideration the local contexts and work within them. Recovery must take into account a wide range of factors that apply both in traumatic loss and in the actions taken in its aftermath. These factors include: security issues; environmental conditions; cultural norms; economic conditions and instruments; functional capacities; traditional, religious and political structures; human rights; and judicial provisions.

The recovery of heritage places must be an integral part of the recovery process in the broader context. This involves the early deployment of measures that respect the cultural significance of these places, including intangible cultural expressions. To achieve this, it is essential to liaise with civil protection and emergency services well in advance of catastrophe, so that operational protocols may be established for later cooperation. These protocols control post-event emergency phases; the way in which damage to heritage is addressed in these phases determines its effective recovery.

Recovery should consider the ongoing community use of a heritage place and the community's needs, as well as the sustainable sourcing of materials. It should avoid materials and processes that are harmful to health or environment, and likewise avoid new materials whose life cycles and impacts on historic materials and structures are not sufficiently known and proven through experience. Recovery should ensure ongoing management and post-recovery maintenance.

Value-based recovery

The retention and perpetuation of as many aspects and attributes of heritage significance, authenticity – and for World Heritage properties, OUV – as possible, including the preservation of surviving heritage fabric, is at the core of effective heritage recovery strategies and interventions, reconstruction included.

The theoretical and technical possibility of reconstruction must not be used as a justification for unnecessary demolitions or removals of damaged heritage components for any reason, including to speed up reconstruction or reduce costs.

Destruction of heritage places and World Heritage properties does not justify the lifting of protection and impact assessment mechanisms that were put in force before disasters, whether to speed up recovery or reconstruction interventions or for any other reason. Those mechanisms should be kept in force throughout the entire recovery process.

Any possible impacts of planned actions or interventions in the recovery process on the significance of the damaged heritage place should be assessed. Where impacts are unavoidable, mitigation measures must be integrated at the planning and implementation levels.

Inclusive, participative and people-centred recovery

Recovery from traumatic events demands long-term commitments and processes that need the involvement and participation of the local populations – and other parties associated with the damaged heritage place – throughout.

Recovery and reconstruction of heritage places and World Heritage properties, particularly in post-conflict situations, must be accompanied by processes and measures supporting transitional justice, reconciliation, and sustainable and equitable development opportunities to ensure that heritage reconstruction can effectively contribute to larger recovery processes.

Sustainable, resilient and risk-informed recovery

Recovery of heritage places also involves improving the resilience of the heritage place and World Heritage properties for the future.

Reconstruction processes should be continuously documented and accessible for the purpose of evaluation, future conservation action and risk management. It is important that the actions undertaken to promote recovery in the wider context are similarly recorded to assist future coordination of intervention and the integration of heritage protection processes.

Regular monitoring and reviewing of the recovery and reconstruction process is essential. This will aid in ascertaining whether initially set out visions and goals remain valid and viable, or whether there is a need to adjust or reset goals, approaches and timeframes to ensure the sustainability of the process in the long term.

Principles concerning cultural heritage conservation set out in policy documents produced by UNESCO, ICOMOS and ICCROM form the overall reference for achieving sustainable recovery processes in heritage places of cultural significance.

Heritage recovery vs current and future risks

Challenges may be posed by superimposing impacts and cascading effects of events, whether occurring simultaneously or consecutively, as well as recurring or protracted events. Recovery and reconstruction will need the capacity to respond to these potential challenges. Making provisions within recovery processes and selecting specific measures to counter risks arising from diverse social and environmental challenges will improve the sustainability of the recovered or reconstructed heritage place.

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Guidance Framework

Recovery after major disasters takes time. The diverse and complex nature of catastrophes affecting heritage places poses particular challenges to the aim of defining phases of recovery and opportunities for intervention that can apply in every instance. Issues of preparedness and planning for disaster that apply to disasters are generally relevant in distinct ways when cultural heritage is concerned. Thus, this Guidance focuses on factors that need to be taken into account across the process as a whole, so that links between phases can be understood. In many instances, describing actions under discrete time-sequence headings such as 'before', 'during' and 'post-event' can be simplistic. Catastrophes may arise through events that are repeated, intermittent or protracted, and some impacts may take time to emerge. Nonetheless, it is useful to outline broad themes for consideration and categories of action that relate to them.

A direct time-sequence approach would follow a typical template: disaster preparedness and planning; emergency response; recovery planning; project management, etc. Several guidelines exist already that address the above-mentioned phases from an operational perspective.

The Guidance for post-trauma recovery and reconstruction sets out a framework for recovery under three principal headings:

1. Heritage Factors
2. Organisational Factors
3. Outcomes: Disaster Risk Reduction and Sustainable Recovery

1. Heritage Factors

1.1 The primary heritage factors to be considered in the recovery processes are:

- the nature of the heritage place, its significance and the attributes supporting that significance
- the nature and extent of impacts on the heritage place and on society
- current and future use of the heritage place
- root causes of the catastrophic event
- the available resources and capacities to enable recovery
- the development of recovery and reconstruction strategies and programmes directed towards the protection of the heritage place and its transmission to the future.

It is necessary to identify the intersecting hazards, vulnerabilities and exposure that caused the disaster/accident/act of violence in order to understand the root causes of a traumatic event. These might include physical conditions, previous interventions and modifications of structures.

1.2 The factors in response to catastrophe and the guidance on reconstruction actions in support of recovery are organised below under three main headings:

- Documentation of the heritage place prior to the traumatic event
- Documentation of the traumatic event
- Recovery actions.

1.3 The implementation of actions related to the above factors will depend on individual circumstances and contexts, and they may overlap or be repeated as events unfold.

Documentation of the heritage place prior to the catastrophic event

1.4 Understanding the heritage place in all its tangible and intangible characteristics – its location or physical setting and socio-economic, cultural and historic contexts – represents a precondition for assessing the impacts of the effects of the traumatic events on the heritage or cultural significance of the heritage place.

Responsible agencies should ensure that documentation in written and visual form is held in a secure repository or archive. A great deal of information can be assembled post-event, but the availability of comprehensive information that underpinned the recognition of significance is of great importance. Attention should be paid to sources that may not have usually been associated with the assessment of significance; folklore collections, literature, art and oral records have proven to be important in this respect.

1.5 Buffer zones to World Heritage properties may be heritage places themselves or contain heritage places distinct from those included within the boundary of the inscribed property. In this case, the baseline assessment also needs to address the role and function played by the buffer zone and by the broader setting in complementing and sustaining the OUV of the World Heritage property.

1.6 A Statement of Outstanding Universal Value lies at the core of any inscription on the World Heritage List and of the management of World Heritage properties. An integral element is the identification of attributes that convey OUV.

For a definition of Statement of Outstanding Universal Value and attributes, please consult *Guidance and Toolkit for Impact Assessments in a World Heritage Context* (UNESCO, ICCROM, ICOMOS, IUCN, 2022): see **References** (page 41).

1.7 The identification of attributes needs to be as complete as possible so that damage or loss can be systematically recorded, appropriate mitigation measures implemented, impact on the significance of the site assessed, and options for recovery and supporting actions identified.

In addition to material elements, attributes that convey OUV may include intangible aspects, such as: socioeconomic structures; the rituals, narratives, skills and livelihood activities of resident populations; and inhabitants' relationships with history and the past.

1.8 Shortcomings in the identification of attributes may become evident when the process outlined below is considered. It is essential that, as soon as they can do so, States Parties with all relevant actors evaluate the quality of the descriptions of attributes from the perspective of their possible depletion or destruction. This matter will be considered further in **Section 3: Outcomes: Disaster Risk Reduction and Sustainable Recovery** (see page 51).

Several early World Heritage nomination dossiers have not been complemented yet, either by a Statement of Outstanding Universal Value or by a detailed identification of attributes. This gap is being addressed progressively by States Parties with the support of the World Heritage Centre and in dialogue with the Advisory Bodies.

From left to right:
Figg. 6. a, b. The impact of previous restoration of the Palazzo Carli Benedetti, L'Aquila, Italy,as witnessed by photographs from the early 1900s (Alinari) showing (left) the eighteenth-century window frames of the loggia and (right) their removal in the restoration of 1947. *(Source: Chini Collection)*

Documentation of catastrophic events

1.9 Documenting the nature of the catastrophe and its extent provides information on the context in which damage or destruction of heritage places has occurred and clarifies factors and elements to be considered in the recovery process.

This paragraph should be read in conjunction with **paragraphs 1.14 to 1.19 and 1.23 to 1.28** in this section, and with **Section 2: Organisational Factors** (see page 42).

1.10 Disasters that affect heritage properties are of many types and causes. Those arising from natural hazards may be sudden, once-off, repeated over time or an evolving consequence of ongoing processes such as climate change. Human-caused catastrophes may be sudden, short, protracted, intermittent, focused on cultural artefacts or generic. Two or more different catastrophes can occur at the same time and their effects may be superimposed, one upon another.

For instance, natural hazards may include land movement and collapse from earthquakes, storms, flooding, avalanches, landslides, extreme weather events and fire. Human actions may also exacerbate the impacts of natural hazards. Destruction occasioned by human action may be deliberate or accidental, the result of conflict, industrial accident or unrestrained resource exploitation.

1.11 Catastrophic events are often characterised by: human tragedy; loss of life, home and community; population displacement; major economic disruption; and loss of roots and traditional culture. Often, a catastrophe also places heritage in peril as a consequence of death or migration, or of such interventions as post-event repair and renovation of infrastructure and neighbourhoods that is disrespectful of social and heritage dimensions.

The impacts of events triggered through natural causes can differ from those arising from human action: in the first instance, community and social relationships often display great solidarity and may prove to be highly resilient. However, in the case of conflicts, differences may be long-standing, as the cause or consequence of deep divisions and exclusions that persist over time.

1.12 The approach to documentation should underscore cross-disciplinary knowledge exchange and inter-agency cooperation to characterise hazards, vulnerabilities and exposure. It should include the knowledge of heritage practitioners and craftspeople.

Documentation should detail:

- whether the catastrophe is a singular event, cyclical, recurrent or protracted
- the impacted area
- the general impact on the physical environment
- losses and surviving elements, pre- and post- catastrophe.

Vulnerabilities of the heritage place and its physical, social, cultural and economic contexts provide helpful information for the recovery process. Understanding whether perceptions and narratives about heritage significance and vulnerabilities have changed in the aftermath of a catastrophe is also essential for preparing recovery and its socio-cultural and technical process.

Helpful guidance and references to documenting disasters can be found in the *Post-Disaster Needs Assessments – Volume A* (GFDRR, EU, WB, UN, 2013) and *Volume B: Culture* (GFDRR, EU, WB, UN, 2017). For conflicts, useful guidance and references are included in *PATH – Peacebuilding Assessment Tool for Heritage Recovery and Rehabilitation* (ICCROM et al, 2021). See **References** (page 39).

From top to bottom:
Fig. 7. The response of local people, pictured clearing rubble in the immediate aftermath of conflict damage in the city of Nablus, Palestine *(Source: Nusir R. Arafat)*
Fig. 8. Patan, Nepal. The earthquake of 2015 in Nepal brought about the complete collapse of Harishankara Temple, one of the main temples in Patan, Kathmandu. *(Source: Kathmandu Valley Preservation Trust)*
Fig. 9. War damage to the Sevri Hadži Hasan mosque, Mostar, Bosnia and Herzegovina *(Source: Zeynep Ahunbay)*

Actions for recovery planning

Response actions are considered under the headings below. It should be understood that they do not necessarily imply a strict sequence, where one category of action is completed before the next can commence. They can be, or may need to be, implemented in parallel.

- Emergency response and initial damage assessment
- Documenting effects of the destructive event
- Assessing impacts on heritage significance or OUV
- Heritage protection and reconstruction in recovery processes
- Developing a strategy for recovery and maintenance of heritage significance or OUV
- Provision for review of outcomes.

Emergency response and initial damage assessment

1.13 Rapid, provisional assessments of impacts tend to be made in the immediate aftermath of traumatic events. Local knowledge and insights may greatly assist in rapid damage assessments to identify the most critical heritage sites requiring immediate attention. Primary elements are:

- the immediate protection of surviving attributes, elements, artefacts or other heritage assets;
- the provision of early documentation.

These assessments may be provisional and made while the primary focus of State Parties and other agencies is directed towards humanitarian, infrastructural and security responses.

The pre-event documentation of the resource will draw on historic records, available written, graphic and photographic documentation and satellite images, where available.

Post-event documentation will focus on establishing the new situation, guided where possible by available information on the pre-event condition. For World Heritage properties, priority in early damage recording should be given to the attributes of Outstanding Universal Value.

1.14 Rapid assessment usually produces an emergency plan that sets out prioritisation of salvage actions and all steps needed to secure the heritage place, in order to minimise the risks caused by the effects of the events and to allow for detailed damage assessments. The emergency plan for damaged heritage places can greatly benefit from the involvement of the leaders of the affected community, cultural heritage experts and relevant stakeholders in creating strategies that address the specific needs of the area.

Prioritisation is based on factors such as the significance, vulnerability and potential for rescue of each place or element.

On-site damage and risk assessment is a combination of rapid observation and sophisticated technical surveying. The on-site damage and risk assessment is conducted by experts on heritage and specialising in heritage survey techniques. These data shoud be combined with on-the-ground observations from community members to obtain a comprehensive understanding of the situation.

1.15 While the existence of documentation prior to disaster is useful for comparison in identifying the extent of physical damage, the importance of early recording of the damage and of surviving elements is emphasised. This activity is known in post-catastrophe recovery as 'situation analysis' and is usually conducted remotely where physical access is restricted. Appropriate situation analysis includes engaging with local residents and experts and the leaders of the affected communities to develop a shared understanding of the wider context and immediate needs.

After the initial emergency and stabilisation, the early recovery phase allows for more participatory documentation. This builds on existing photos, maps, inventories and community-led data collection. The local communities must be empowered to actively participate in data collection efforts. Training and resources to this end will be needed. This approach not only enhances the accuracy of data, but also fosters community engagement and ownership. Participatory documentation helps affected communities to participate in their own cultural recovery. In a conflict situation, it also helps to develop a conflict-sensitive approach.

The situation analysis helps to identify when it is safe to start and how to plan the on-site damage and risk assessment. Detailed guidance for situation analysis is provided in the manual on *First Aid to Cultural Heritage in Times of Crisis* (ICCROM, 2018): see **References** (page 39).

1.16 Image capture is a first essential step; other forms of documentation, such as audio recording, should be utilised as circumstances allow. Comparatively simple technologies and techniques can be very useful in disaster settings and, in certain situations, might be preferable to technologies that require more sophisticated equipment.

Image capture may include photographs, aerial views, satellite imagery, recordings made using mobile phones or tablets, crowdsourcing of images, and the use of drones and robots for 3D documentation. Additional documentation techniques may include sonic and thermographic characterisations of damage, internal dispositions and historic layers. Technologies for rapid survey and damage documentation continue to evolve at a rapid pace, but methodological approaches to documentation have been set out.

Detailed guidance on on-site damage and risk assessment is given in the manual on *First Aid to Cultural Heritage in Times of Crisis* (ICCROM, 2018). See **References** (page 39).

1.17 Measures must be in place to capture and retain such data as evidence of the extent and form of damage and – for use in assessing impacts on attributes – post-disaster risk assessments and the identification of actions needed to enable recovery or reconstruction.

1.18 Salvage extends to fragments, contents and artefacts. Debris removal management plans, including access routes, storage facilities and spaces for later selection of heritage fragments, can assist in their safeguarding and future use in recovery processes, and in avoiding or reducing the risk of theft.

Fragments must be identified, protected, collected, photographed, inventoried/numbered, and if displaced, securely stored for later reinstatement and to prevent looting. When fragments of heritage places or sites are mixed with debris and difficult to identify, further loss of heritage fabric in association with site clearance is a risk.

1.19 Both modern and traditional knowledge, technologies, techniques and construction practices may have an essential role in temporary shoring, salvage and storage. Actions to stabilise damaged heritage places and prevent further loss or destruction may involve shoring and bracing, as well as securing loose or fragile elements to prevent collapse or additional damage. These actions can be planned strategically to allow the safe use of damaged structures or spaces, thus facilitating the continuity, or the re-establishment, of the connection between the people and their heritage and living places. Whenever possible, active community participation in decision-making related to stabilisation measures should be sought.

Such interventions may require engineering expertise in cases where structures have become unstable.

Guidance for security and stabilisation is given in the manual on *First Aid to Cultural Heritage in Times of Crisis* (ICCROM, 2018) and in other guidance documents listed in the **References** below (see page 39).

The Italian National Fire Department has developed a manual to build shoring for unstable structures: *Vademecum STOP: Shoring templates and operating procedures for the support of buildings damaged by earthquakes* (2012) . See **References** (page 40).

1.20 The need to implement emergency safeguarding measures may emerge as the aftermath of a disaster event unfolds, or as documentation of the effects of the traumatic events on heritage places proceeds. Such work must be done under appropriately qualified supervision and considered only when procedures such as temporary stabilisation are insufficient.

1.21 When measures such as temporary stabilisation are insufficient, the need may emerge to implement additional emergency safeguarding measures, whether to protect lives, avoid further damage or enable later repairs or reconstruction. These may include the controlled dismantling of unstable building components. Judgements in this regard and implementation of this measure require expert knowledge.

Controlled dismantling is a process through which unstable portions of a heritage place are removed from their location through a controlled and phased process. This process allows their reinstatement once conservation treatments have been conducted both on the portion removed and on the extant part of the structure that has remained in situ.

1.22 Temporary stabilisation works undertaken during an emergency response, whether to prevent injury from damaged structures, to prevent collapse or to guard against further damage, should not be considered a replacement for definitive recovery interventions.

1.23 Until such time as a detailed assessment of impact can be made, reconstruction beyond emergency measures should be avoided. Such temporary measures as are necessary should be carried out in such a way that they do not eliminate or inhibit options for future repair or reconstruction that could recover attributes of OUV.

From top to bottom:
Fig. 10. Artefacts and decorative elements were manually recovered from the debris of collapsed temples, Patan, Kathmandu, Nepal. *(Source: Thomas Schrom)*
Fig. 11. Major stabilisation propping to the former Municipal Chambers, Christchurch, New Zealand *(Source: Christchurch City Council heritage files)*
Fig. 12. Temporary protective covering with tarpaulins to the damaged wings of the Royal Palace, Patan, Kathmandu, Nepal *(Source: Institute of Conservation, University of Applied Arts, Vienna)*

Documenting effects of the destructive event

1.24 The documentation of effects is necessary so that an accurate appraisal can be made of the status or conditions of the elements and tangible attributes of the heritage place.

1.25 The process of documenting effects on the heritage place, its resources and attributes may commence even as events unfold. However, more specific information, additional documentation and further, in-depth analysis are likely to be required in order to reach conclusions. The process involves assessing both the extent of the damage or loss to heritage places and the social and cultural impact of the trauma on the affected community. This assessment may be conducted by heritage professionals, community leaders and other experts in collaboration with the people affected. The preparation of this information will yield a provisional understanding of the scope of damage and of immediate actions required to mitigate effects and prevent further loss.

Initial review of the effects of the traumatic event on the heritage place and its attributes is made on the basis of data gathered through resources that are at hand. If possible, this should be achieved through a combination of off-site and on-site multidisciplinary and interdisciplinary methods. New technologies offer opportunities in this respect.

1.26 The documenting and review of effects of a traumatic event on the attributes of a heritage place can proceed in parallel and, whenever meaningful, in synergy with other sectors impacted by the event.

A detailed damage and risk assessment must be undertaken, and a condition statement prepared, for each of the attributes of significance or OUV of World Heritage sites. Any damage to attributes must be recorded.

1.27 In documenting damage, it is important to assess the underlying factors that may have increased the vulnerability of the heritage place or property to hazards, while also considering the possible emergence of new hazards. The reconstruction framework should address these as the recovery process unfolds.

Examples include the decay of building fabric (insect attack, rot, etc.), changes in ground conditions, lack of maintenance, construction defects or low quality materials.

1.28 Actions towards reconstruction will be more sustainable if pre-existing defects and weaknesses that contributed to failures when the high-impact disaster occurred are identified as such during the investigation – not all damage can be directly attributed to the impact of a particular event.

See also ICCROM's tool on *Vulnerability and Capacity Assessment*: see **References** (page 39).

1.29 Data gathered in the immediate aftermath of a catastrophe needs to be managed and transmitted using standardised forms and protocols and utilising collaborative platforms or networks to make data available to diverse stakeholders and agencies. Coordination at international and national levels is required for this purpose, as multiple entities are generally involved. It is imperative that responsible agencies and particularly States Parties can access, manage and use the necessary data.

Such data is important not only for the assessment of impacts and recovery actions in that specific disaster, but also because it provides a resource for response to other, similar disasters and is crucial for enhancing the capacity for recovery of people and heritage places.

From top to bottom:
Fig. 13. Earthquake damage to the Cathedral of the Blessed Sacrament, Christchurch, New Zealand *(Source: Andrew Marriott, Christchurch City Council heritage files)*
Fig. 14. Earthquake damage to Palazzo Carli Benedetti, L'Aquila, Italy: the collapse of the loggia staircase *(Source: Carla Bartolomucci)*

Assessing impacts on heritage significance and OUV

1.30 The outcome of early investigation must be a comprehensive description of the impacts of the event(s) on the attributes of the heritage place, and an initial, provisional assessment of how these relate to its significance.

Provisional assessment does not necessarily lead to a definitive conclusion as to whether attributes have been lost or depleted beyond recovery.

1.31 Assessing the impacts of an event on heritage assets involves determining their post-event condition and integrity, as well as identifying the impact of the damage on their significance.

Competencies and processes for these assessments will vary between uninhabited archaeological sites and those supporting living communities. In the case of continued and protracted disasters, it is recommended that a timeline be drawn to record successive phases of the destructive events.

1.32 Whenever feasible, assessments of impact must include documentation of the effects of events on both tangible and intangible dimensions of heritage places or, where relevant, attributes of OUV. Systematic recording and analysis will provide an early indication of damage to tangible and intangible attributes. Involving affected communities and local experts in the assessment of impacts will benefit the process and increase capacities.

Typically, the process entails the creation of a systematic inventory of the heritage elements that express the significance of the property, or of the attributes that convey OUV, and an assessment of their post-trauma condition.

A comparative analysis between the heritage place's pre-event attributes and its current state may help in determining the specific effects of the destructive event. The combination of quantitative analysis with narrative descriptions will assist in capturing the full extent of the impacts.

1.33 The assessment of impacts will be based on the extent of the damage, the nature of the attributes and the role they play in conveying the heritage significance or OUV. Such assessment is provisional and may give rise to a need for supplementary information, as circumstances allow. Provisional assessments may be revised as a result.

1.34 It is important to allow time to assess the implications of the damage or loss before proceeding to outline choices for intervention.

The remains of the affected heritage place or World Heritage site should be fully protected from further deterioration, theft and vandalism, and appropriate management should be provided during the process of outlining the final choice for intervention.

1.35 The assessment of the impact of destructive events on heritage places and their cultural significance, or on the attributes of OUV, will occur within a wide range of circumstances and political contexts, and will span varying timeframes.

In the case of World Heritage properties, assessments of impacts will relate most directly to attributes that convey OUV. For World Heritage properties, States Parties may secure the assistance of ICOMOS and ICCROM and/or other international heritage agencies in executing this task.

1.36 The identification of possible and appropriate reconstruction choices will depend on the comprehensiveness and quality of information gathered. It is important to ensure that the primary structures for information-gathering are appropriate.

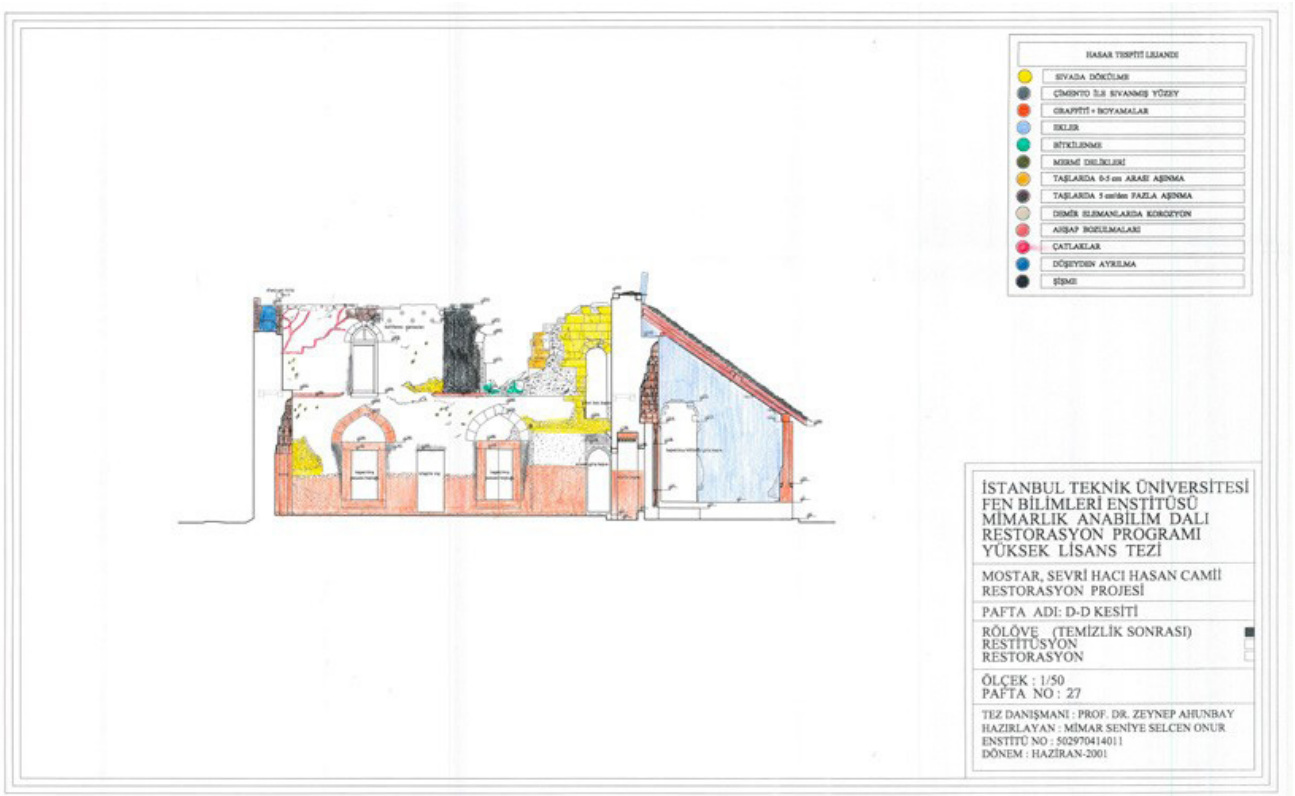


Fig. 15. Assessing damage to Sevri Hadži Hasan mosque, Mostar, Bosnia and Herzegovina. North–south cross-section drawing *(Source: Selcen Onur, architect)*

Heritage protection and reconstruction in recovery processes

1.37 The development of a recovery process that addresses how heritage places have been affected requires three sets of actions:

- The assessment of impacts on significance and the identification of opportunities for recovery actions
- The development of measures, including the harnessing of statutory instruments, through which reconstruction actions can be supported and coordinated at local and national levels
- The implementation of measures and establishment of feedback mechanisms.

1.38 The condition of the attributes and the assessment of the impact of damage on heritage values should form the basis for identifying and assessing recovery choices, including forms of reconstruction, if deemed feasible and useful to recovering heritage significance in part or in full.

1.39 The chosen approach to recovery should ensure that the retention of surviving fabric and attributes is maximised, and that damaged heritage places are recovered and handed down 'in the full richness of their authenticity', so that their heritage significance can be conserved and enriched.

1.40 The retention of traces of damage and their integration into the conservation and reconstruction of damaged heritage places is a potent act of commemoration, and can support recovery processes. Such processes may involve developing interpretive conservation methods, materials and programmes that highlight the significance of the reconstructed heritage places in ways that respect the perspectives and experiences of affected people. Particularly where damage is a result of conflict, commemorative materials and programmes must take account of the need and prospects for conflict resolution or reconciliation.

Post-conflict recovery and reconstruction of heritage places brings particular challenges in avoiding the risks of appropriation of meaning and of suffering. Guidance material in this regard is available through UN, UNESCO and Council of Europe websites.

1.41 Strategic planning can assist in setting out the long-term, intermediate and shorter-term goals for the recovery process. It is recognised that goals may require adjustment as recovery processes take hold. Recovery processes are generally complex and demand advance planning, resource allocation and implementation measures. From the heritage perspective, the endpoint is the maximal recovery of the significance of places, which means recovery of the attributes that support that significance.

Clarity and consistency of purpose, expressed at the strategic level, must be maintained throughout short-, medium and longer-term interventions. Aims and objectives that address long-term goals for recovery, and reflect a vision for the cultural endowment, should be set out at programme level.

Such interventions are designed to promote the resumption both of daily life and of projects aimed at the repair, reconstruction and restoration of built fabric, services and the public realm.

1.42 The recovery of a damaged heritage place is a process that occurs at different levels, ranging from the individual project to programmes of action to re-establish the wider setting. To be effective, the process will use different instruments as appropriate. The development of an over-arching vision, expressed at the level of strategy, will assist in the integration of operational plans and programmes for the recovery of specific heritage areas and attributes.
It should be noted that differing and overlapping timeframes are characteristic of the process. Maintaining the overall goal of maximal recovery of significance in the face of overlapping timeframes at the various levels of intervention requires flexibility in implementation, which will facilitate adjustments in programmes as feedback indicates.

In post-disaster and post-conflict recovery processes, developing a vision for the recovery of the area affected by the traumatic event is an important element in formulating a recovery strategy and designing recovery.

1.43 Within an overall strategy, reconstruction programmes and projects at impacted heritage places might demand different timeframes for practical and socio-cultural reasons. This is especially true for complex sites whose significance derives from the richness of survivals from the past and the continuity of habitation and usage. For similar reasons, the development of such a strategy may progress at different rates throughout the affected area. It is to be anticipated that strategies as well as programmes will evolve throughout the recovery process.

This is the case, for instance, for urban areas, cities, sites and landscapes. Inevitably, the approaches adopted in recovery and reconstruction will reflect this complexity, while the underlying purpose remains the same.

1.44 It may not always be possible to achieve immediate consensus on a definitive recovery approach, or a single recovery approach may not apply to the entire affected area or its peoples. Therefore, wherever possible, the recovery vision must be able to accommodate a gradual and iterative approach in defining and implementing reconstruction options, giving flexibility to recovery implementation while maintaining direction.

This can arise, for example, when the damage is extensive or the impacts are severe or continuing. It may arise where differences in value are ascribed to the resource, or where there are opposing views as to what recovery entails. Such conditions may especially transpire when diverse populations have been impacted.

1.45 A recovery process that embeds local initiatives for the recovery of specific heritage areas and attributes and integrates them into broader operational plans and programmes provides an opportunity for community engagement. More importantly, it can also generate sufficient consensus to establish an overall recovery plan. The building of consensus and the building of capacity within the affected communities are primary elements of recovery.

Please also see Section 2: Organisational Factors (page 42).

1.46 The process of arriving at decisions on recovery actions, including those relating to reconstruction, will identify for alternative approaches:

- the purposes and motivation
- the justification
- expected outcomes.

This process, including the presentation of decisions, is a fundamental element in the coordination of interventions, in population empowerment and in building consensus, all of which are central to recovery. The decision-making process and its outcomes will need to be documented and described in writing and made accessible to all relevant stakeholders and rights holders.

In relation to possible envisaged approaches, the document produced will:

- describe the interventions
- identify the proposed recovery actions, including those related to reconstruction
- identify the documentation and resources available, the chosen methodology and techniques, the phases and the possible timeframe.

It will incorporate an appraisal of each possible choice, which sets out which attributes will be recovered, as well as the impacts of the proposed recovery methods on any surviving attributes and the consequences for heritage significance and OUV.

1.47 Restoring a heavily damaged or destroyed heritage place to its pre-trauma state may not be feasible in many cases. At the same time, altered or other attributes supportive of heritage significance or OUV may become apparent and generate new recovery options that involve their conservation and enhancement.

The integration of newly identified attributes revealed by the effects of the traumatic events on the heritage place, and the question of reappraising its heritage significance, might bring valuable contributions to the recovery plan.

1.48 Following catastrophes, heritage values may evolve, and the reappraisal of heritage significance or OUV may require time for reflection before an assessment can be made.

In the case of World Heritage properties, this may lead to the application of established statutory processes, i.e. reactive monitoring.

1.49 The needs and perceptions of actors regarding recovery may also evolve in the process. Regular review of the vision, goals and implementation allows the incorporation of evolving needs and views about heritage recovery and reconstruction.

1.50 In the case of World Heritage properties, consultation with the World Heritage Centre and the Advisory Bodies would be helpful in developing a vision for recovery and the elements of a strategic approach to reconstruction in that context.

Fig. 16. Temporary storage of displaced fragments, Christchurch *(Source: Christchurch City Council heritage files)*

From top to bottom:
Fig. 17. Salvaged bricks, sorted and stacked, McLean's Mansions, Christchurch *(Source: Christchurch City Council heritage files)*
Fig. 18. Open-air temporary workshops set up next to storage facility, Patan, Nepal *(Source: Institute of Conservation, University of Applied Arts, Vienna)*
Fig. 19. Skilled craftspeople at work, Patan, Nepal *(Source: Kathmandu Valley Preservation Trust)*

EXPLORING APPROACHES TO RECONSTRUCTION AT DAMAGED WORLD HERITAGE PROPERTIES

Below are some examples of circumstances under which reconstruction options for material fabric might be explored:

- If the OUV is conveyed by attributes related to form, design and function, damaged or depleted attributes may have the capacity to be re-established in some circumstances. In exploring approaches to reconstruction, the goal will include the maximal retention of historical material and its stratigraphy. This perspective is essential because new structures may not necessarily reflect the historical associations or historical layering that existed prior to the destructive events.

- If the OUV is reflected by attributes related to the coherence of an ensemble, and where limited elements have been affected, it may be appropriate to re-establish the integrity of the ensemble, including the use of new but compatible materials to do so.

- If the OUV is based on attributes related to the dynamism of a city that reflects centuries of urban societies and their formal and informal structures, then the attributes of that urban form might be re-established to re-house the inhabitants and revitalize the social and economic fabric, maintaining the authenticity of the place. While the reconstruction and recovery process can also bring opportunities to improve the quality of social or civic life, the impact of long-term displacement of populations, or slow pace of reconstruction, is a major consideration, and one that might affect the intangible aspects irreversibly.

- If the OUV relates to customary practices such as rituals, beliefs, stories or festivals, reconstruction of tangible attributes (structures and carvings) may be critical to the persistence of those practices, and the reconstruction process may need to respond to specific requirements related to these practices.

The conditions outlined above relate to inhabited sites. In the case of uninhabited archaeological sites, any consideration of intervention must prioritise the authenticity of surviving and persisting attributes.

Note: *The validity of the reasoning in the above paragraphs will need to take into account the scale at which it is applied, and will need to be verified in each circumstance in relation to the specific configuration and historic development of each attribute or heritage resource for which some form of reconstruction might be sought.*

Approvals and consents

1.51 Where the heritage places in question have some level of statutory protection, specific permissions or consents from the relevant authorities will be required. These may be required at different levels – at the level of strategy, the programme or the specific project. The success of recovery efforts can be related to how well they are supported by the frameworks of institutions and regulation. Efficient mechanisms for permission, as well as standardisation of practices, are crucial.

It has been observed that consultation processes and the gaining of consents can be time-consuming, leading to delays in essential interventions. Agencies and authorities must make every effort to streamline their processes in order to avoid becoming obstacles to recovery despite their supportive intentions.

Recovery processes may be delayed due to delayed administrative processes and a lack of capacity for structural safety assessments, as well as emergency stabilisation. Setting out nationally and locally agreed, context-sensitive recovery timelines is essential to ensure a coordinated, effective and efficient deployment of resources by donors.

1.52 It is to be expected that works requiring consents or approvals will range from short-term interventions such as temporary stabilisation (e.g. propping, shoring, bracing) and temporary storage to repair methods, material insertion or replacement, the deployment of new materials or techniques, the construction of replacement structures, changes to morphology and the provision of new infrastructure.

From left to right:
Fig. 20. Involvement of a local inhabitant and student in architecture to assist in documenting how to reassemble the elements. Duomo, Venzone, Italy *(source: Francesco Doglioni)*
Fig. 21. Securing metal clamp with molten lead in masonry reconstruction. Sevri Hadzi Hasan mosque, Mostar *(Source: Zeynep Ahunbay)*

1.53 In the case of World Heritage properties, reference to the World Heritage Centre and the Advisory Bodies is a necessary step in developing the assessment of how OUV may been affected, and in devising acceptable approaches to its recovery. Compliance with established procedures will be essential.

Implementation of the strategy: Instruments for planning and action

1.54 The implementation of strategies for a sustainable recovery demands that the actions undertaken utilise the capacities of key actors at every level. This requires a combination of bottom-up and top-down approaches. The former will mean that the perceptions of the local population, along with their knowledge, experience, skills and heritage practices, are harnessed to shape a participative process that can be sustained. The top-down approaches will require an integration of strategic decisions, appropriate action plans and resource allocations. The coordination of these approaches will make demands on every level of organisation. Some critical factors are discussed in **Section 3: Outcomes: Disaster Risk Reduction and Sustainable Recovery** (see page 51).

1.55 Conventional planning instruments at strategic, programme and project levels may be challenged by the flexibility demanded by post-disaster conditions. With clarity of purpose, planning methods and instruments can be used with flexibility while maintaining consistency though the various processes and procurement measures. Thus, the application of planning instruments must be subject to review as the recovery process unfolds.

Various levels of instruments may be utilised to maximise coordination and effective use of capacities:

- Strategic Plans outlining purpose and resource requirements
- Master Plans for implementing entire programmes or for complex interventions, or
- Action Plans for specific projects.

In many cases, international agencies will bring both resources to bear, and will have developed approaches to intervention. Integration with local and indigenous understandings, organisational structures and capacities is crucial.

1.56 The levels of strategy, programme and project must be addressed in the recovery process. Based on the assessment of impacts of disaster effects:

- The strategy level will set out aims and objectives for recovery, which must reflect a vision for the heritage place after the event(s), and the role of recovery in the societal healing process from trauma. It will ensure a comprehensive and inclusive listing of actors and address the scope of organisational networks.

- The programme and operational plan level will bring together the broad means of achieving aims and the resources required, will prioritise actions to address intervention to promote the resumption of daily life and will include a list of projects.

- The project level is aimed at the repair, reconstruction and restoration of the built fabric, services and public realm. Experience on the ground will require adjustments, overcoming blockages and utilising opportunities that emerge.

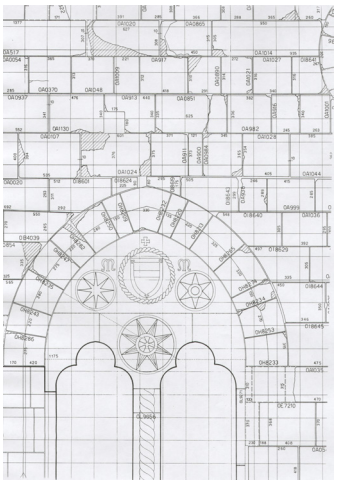
The different levels will call on different actors and agencies and will utilise conventional instruments. Their coordination will be the responsibility of the statutory authorities, and in the case of World Heritage properties, the State Party.

1.57 It is important to note that such instruments need to be developed in parallel rather than in sequence, with consistent cross-reference between the objectives and the means of achieving them.

1.58 The process of developing a proposal for restoration and reconstruction must include an impact assessment of the various actions being considered on the attributes of the heritage place. Any consequent impact on the significance of the heritage place must be carefully articulated. This procedure must extend to setting out measures that will be taken to mitigate impacts. Using the approach and methodology of the *Guidance and Toolkit for Impact Assessments in World Heritage Contexts* is necessary for World Heritage properties and recommended for all heritage places.

1.59 For World Heritage properties, the strategic and the operational plans, programmes and projects with implementation measures should be reported at agreed stages in the process to the World Heritage Centre and the Advisory Bodies.

For World Heritage properties that are perceived to be under threat, the Operational Guidelines for the Implementation of the World Heritage Convention provide for reactive monitoring, which is a reporting and collaboration mechanism set up to ensure that all possible measures to remove threats from a property are deployed. This implies a wide range of actions, including: providing information; processing, reporting on and updating such information; carrying out reactive monitoring or advisory missions; and providing technical assistance, if requested.



From left to right:
Figg. 22. a, b. Collaboration between local population and experts in anastylosis, Duomo di Venzone. Stones identified and assembled by the local population; numbered schema drawing of stonework. *(Source: Franceso Doglioni)*

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2.Organisational Factors

In this section, Guidance is presented under the following headings:

- Identification of actors
- Coordination and engagement of actors
- Linkage with broader recovery strategies
- Clarity of operational responsibilities
- The deployment of expertise and skills
- Effective use of resources
- Capacity building.

Identification of actors

2.1 Recovery also relates to social context. As well as dealing with the direct impacts on health, well-being and living conditions, recovery involves supporting the re-establishment of social functions. Hence, it is essential that the full range of relevant actors be identified and the role of each in the response and post-trauma recovery process for heritage places, including World Heritage properties, be established.

2.2 The displaced, including the diaspora of heritage practitioners, should be given special consideration. The possibility of recovery of the significance of heritage places, including through their reconstruction, depends on maintaining some sort of relationship alive in the minds of the displaced, including the younger generations. This should be part of an overall strategy for cultural recovery.

At a minimum, the actors would need to include: the responsible sections within the States Parties' governmental structures; the emergency services and other agencies; cultural institutions; local communities; and key stakeholders and rights holders such as traditional authorities, property owners, key experts and knowledge holders.

Coordination and engagement of actors

2.3 Effective response depends on including both people and their heritage practices. The establishment of robust communication networks among international agencies and implementing bodies, national and local authorities, residents, owners and relevant experts and craftspeople is an essential element in heritage management. In the event of a disaster, working relationships and communication networks need to function effectively where normal communications may be compromised.

During a protracted crisis, the relationship between a cultural heritage place and its community is often disrupted, sometimes for years.

The communication should be managed through regular meetings, consultations and the formation of both community-led and expert committees.

2.4 It is especially important to coordinate response with civil protection and emergency coordinators. Recovery funds are channelled through the emergency response or relief and recovery coordinators appointed by the national authorities. This coordination enables the inclusion of heritage places and World Heritage properties into the comprehensive priority intervention lists.

2.5 Coordination is also needed in cross-disciplinary knowledge exchange and information sharing, particularly in the area of hazards, vulnerabilities and exposure characterisation. Depending on the national organisation, the recovery process should establish coordination among agencies responsible for security, civil protection, search and rescue, fire protection, health, and humanitarian clusters, particularly in the early phases of recovery.

2.6 Robust and inclusive coordination mechanisms are needed to ensuring the effective engagement of the affected population in decisions affecting the future of their areas.

Measures to bring about such engagement must take into account the diversity that exists within populations, encouraging participation and avoiding exclusion or marginalisation. Effective engagement of the affected population in the recovery process requires that all groups participate in shaping decisions affecting the future of their areas and heritage places. It extends to engagement in appropriate restorative actions.

2.7 In seeking to benefit from the potentials offered by international cooperation, establishing, strengthening and coordinating liaisons with relevant international agencies, other states' cooperation entities and NGOs will be an important consideration.

Fig. 23. Consultation meeting in the reconstruction of Temple of Nuestra Señora de la Asunción, San Luis Potosí, Mexico *(Source: Diego Ángeles)*

Linkage with broader recovery strategies

2.8 Post-trauma heritage protection and the establishment of appropriate programmes for recovery will place additional demands on existing institutional arrangements. Increased cooperation and consultation with local organisations, additional interactions between agencies and authorities and essential collaborations with international bodies are among the consistent features of recovery programmes. It is important that institutional arrangements are subject to review from the perspective of how they can respond to pressure arising from the pursuit of a prompt recovery.

2.9 The link between the retention of attributes and the recovery of their capacity to convey heritage significance or OUV and the wider recovery process should, as much as possible, be planned in advance.

Even during ongoing events or conflict situations, emergency response and post-trauma interventions should also be planned for, where feasible.

2.10 Given the complexities involved, tensions may arise between conflicting priorities. Decisions about the most appropriate approach/strategy for recovery of certain attributes of heritage places and World Heritage properties damaged during traumatic events may need more time for reflection than the recovery or reconstruction of infrastructure or other assets. At the same time, the recovery of cultural heritage may play a key role in enabling or facilitating larger processes of recovery. Hence, appropriate timeframes for decision-making about definitive recovery or reconstruction of heritage attributes need to be agreed within the framework of larger recovery processes.

Recovery strategies, action plans and interventions need to harness opportunities offered by cultural heritage recovery. Doing so will mean taking into account the time needed to develop thoughtful and shared recovery options, including reconstruction, where this enables attributes' continued conveyance of heritage significance, and for OUV to be sustained, recovered, revived or re-established.

2.11 The interplay of these factors will vary from case to case and as circumstances dictate. There are also implications in terms of risk management and preparedness. These are outlined below in **Section 3: Outcomes: Disaster Risk Reduction and Sustainable Recovery** (page 51).

Fig. 24. San Pedro de Alcántara, O'Higgins Region, Chile. Community meeting in San Pedro about the Heritage Rebuilding Programme, with representatives of MINVU and CMN. *(courtesy of SEREMI MINVU, 2011)*

Clarity of operational responsibilities

2.12 Effective response to trauma demands clear lines of responsibility, in which the roles of competent authorities, agencies and other stakeholders are set out both in early response and throughout the recovery process. The definition of roles must include what can be contributed by affected populations. Where the vulnerability of heritage places is established, such information must be a priority in public awareness measures.

The understanding of impacts and the expectations for recovery will vary widely among stakeholders.

2.13 It is essential that decisions are transparent and prioritise inclusiveness.

Mechanisms must be in place to ensure that perspectives and values are understood, and that their relevance to the conservation, maintenance, restoration or reconstruction of attributes is articulated and given appropriate expression in the recovery process.

2.14 Protocols for the collection and sharing of data must be established. All data on the attributes of heritage places, and particularly of World Heritage properties, must be accessible by States Parties, central and local authorities responsible for their management and all those involved in the recovery process, in the development of action plans and in their implementation.

The deployment of expertise and skills

2.15 Effective response is essentially interdisciplinary and inclusive. This puts a high priority on clarity of relationships, but also on the availability of adequate expert knowledge and skills from specialist individuals, institutions and the local community. Effective response requires active knowledge-sharing, capacity-building, organisational flexibility and the ability to respond to changing situations.

The inclusion of local knowledge, skills and capacities is critical, and the engagement of local stakeholders in goal setting and programme development is crucial for effective recovery and improved preparedness and resilience at the heritage place. Organising training in *First Aid to Cultural Heritage in Times of Crisis* (see **References**, page 39) can increase the effectiveness of the emergency response.

2.16 While expertise in building construction and structural engineering can be crucial in many instances, all too often experts involved in emergency stabilisation and in recovery and reconstruction responses for heritage places do not hold the necessary knowledge or experience of traditional structures or the use of traditional materials. As this can result in applying structural paradigms and standards that are not appropriate for the structural behaviour and construction logic of these types of buildings, local building knowledge and expertise should be involved as part of the process.

Traditional structures or materials might include, for instance, traditional masonry, wood or adobe constructions, or flood resistance systems.

2.17 It is of the utmost importance that expertise in construction and structural engineering involved in the recovery process is appropriate to the structures being recovered, and that interventions, whether involving restoration or reconstruction, are specific to the building traditions of the place. The input of local operatives, traditional craftsmanship and techniques into recovery efforts may be critical in this regard. In addition, the participation of the affected populations in reconstruction activities may provide opportunities to build or strengthen locals' capacities and foster a sense of ownership and connection with their cultural heritage.

2.18 The experience and expertise of outside institutions, agencies and specialists make an essential contribution to informed decision-making. Together with the contribution of the international heritage community and its institutions, it comprises a potent resource.

Outside institutions might include, for instance, national or international organisations, multilateral donors and agencies.

Fig. 25. Cooperation in action: carpenter guides work in reassembling a bridge bean frame, Xuezhai Bridge, Taishun County Wenzhou City, Zhenjiang Province, China *(Source: Huang Zi)*

Effective use of resources

2.19 Resources comprise financial allocations, the availability of expertise and equipment, and an affected community's knowledge, skills and management practices. Within the resources assigned to disaster response, adequate provision must be made to address heritage impacts, and specifically those that affect World Heritage properties. Such provision should address the range of situations encountered, as described above.

2.20 In the first instance, provision for emergency interventions to protect the attributes of World Heritage properties and heritage places must be made within emergency funding allocations, and clear arrangements must be in place so that they can be promptly brought into play when response mechanisms are triggered.

This provision would address documentation, stabilisation, salvage, storage, implementation of preventive measures and safe-keeping.

2.21 As official responses gain momentum, and recovery and reconstruction get under way, it is important to ensure that local capacities and commitment continue to be deployed and are not sidelined, since they are fundamental to recovering and sustaining heritage significance or OUV and the recovery process in the long term. Local professionals and craftspeople need to be recognised, empowered and involved in the reconstruction. Such involvement must be prioritised in recovery projects supported through international and foreign funding.

2.22 Disasters create changed social and economic realities. They provide opportunities for interventions that can have positive or negative implications for maintaining the heritage significance of places. Therefore, whenever proposals for new development are advanced in catastrophe-stricken heritage places, these need to be assessed against their ability to support restoring heritage significance.

The capacities of private interests may be potential resources that can be deployed positively in this regard, but they may also cause pressures for change to exploit the post-event situations for real estate operations that could not have been advanced prior to a disaster.

2.23 Guidelines for international cooperation agencies and large companies on how to intervene in the respect of local context, heritage significance and OUV should be developed and made available.

Harnessing the capacities of large companies or overseas agencies in the interests of rapid reconstruction carries the risk of substituting imported labour and modern technologies for indigenous resources and traditional methods.

2.24 Existing post-disaster and post-conflict recovery guidance documents should include essential information on resource organisations and management. This can also be helpful in planning cultural heritage recovery and reconstruction, although some of the suggested processes and timeframes may need to be adapted to the specificities of heritage places' recovery.

Fig. 26. Careful integration of materials and techniques in reconstructing the Main House or Muzibu Azaala Mpanga, Kasubi Tombs complex, Kampala, Uganda *(Source: Jonathan Nsbuga)*

Capacity building

2.25 The acknowledged importance of heritage to community identity must be expressed in the active engagement of communities in the care, use and maintenance of their heritage.

Initiatives to increase knowledge and engagement among the local population, and the conscious deployment of local resources in ongoing administration and custodianship, will increase possibilities of recovering both tangible and intangible attributes in the aftermath of disaster.

2.26 Capacity-building and training initiatives for post-event emergency personnel on the importance of respecting, salvaging and stabilising damaged heritage in the immediate aftermath of a catastrophic event are crucial, in order to guarantee that heritage is given adequate consideration in the emergency phases.

Based on its experience in capacity building, ICCROM observes that when capacity has been created or enhanced in advance of catastrophic events, response has been more effective.

2.27 In parallel, providing training to heritage professionals on post-event risks and safety protocols in emergency situations is essential to establish a common ground for dialogue and cooperation between the heritage sector and the post-event emergency sector. Capacity-building initiatives that empower the local community to actively participate in the recovery process need to be prioritised.

2.28 Specialised training programmes that enhance the skills of traditional craftspeople should be a part of capacity-building programmes. The training should be tailored to address the unique challenges and requirements of the post-disaster context.

2.29 Capacity and new knowledge built through the recovery process must be developed and appropriated by local actors. Any international and national agency implicated in post-trauma recovery and reconstruction must ensure that the capacity and skills are enhanced at the site level throughout the process.

2.30 Establishing platforms for gathering and exchanging experiences in capacity building for post-event recovery from international or national organisations, civil society and both national and local professional and non-governmental organisations can provide a good basis for further experience-based guidance.

Fig. 27. Workshop in applying mud stucco, Quinta de Tilcoco, San Pedro de Alcántara, O'Higgins region, Chile *(Source: SEREMI, MINVU)*

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3.Outcomes: Disaster Risk Reduction and Sustainable Recovery

3.1 A Disaster Risk Management (DRM) plan should be prepared by responsible bodies for all at-risk places of heritage significance. Typically, DRM plans will address disaster and conflict forecasting and prevention, early warning mechanisms, risk mapping and risk reduction – including climate action, emergency response and follow-through actions – and will identify the responsible agencies at each stage.
The compilation of necessary information may require engagement with community leaders and local organisations. This type of information should be compiled as a dossier and made available to key personnel and emergency services.

DRM plans will address such matters as: provisions for evacuation and safe refuge; the listing of significant assets and their related protection requirement; the identification of key personnel and their contact details; contact provisions for critical first responders; the identification of access arrangements for emergency services; and security arrangements for movable assets.

3.2 To be effective, disaster risk reduction needs to become a widespread attitude, a specific component of heritage protection culture, to be developed through exercise and practice. To this end, appropriate training provision for key personnel and the emergency services should be put in place.

Training in *First Aid to Cultural Heritage in Times of Crisis* may help in: activating emergency response; setting up coordination mechanisms; carrying out in a phased manner different types of post-event damage, risk and needs assessments; stabilisation and documentation of different types of heritage; managing debris; and planning recovery. This would increase the effectiveness of the emergency response.

3.3 In this context, the documentation of tangible and intangible attributes of such heritage places becomes even more important. Particularly in the case of World Heritage properties, States Parties should review their current documentation from the perspective of its comprehensiveness (anticipating possible damage or loss) and existing provisions for storage and retrieval, both in emergency situations and in the longer term. Particular attention should be paid to requirements for updating systems. It is recognised that this is a very major task.

3.4 States Parties are encouraged to revisit and, where necessary, update and modify the frameworks in place for the protection of heritage to take account of the potential impacts of disaster. Such review may highlight where new provisions in law or regulation are required.

The UN disaster and conflict forecasting and early warning system should be consulted regularly for the World Heritage sites and communicated to the possibly affected States Parties. The UN Secretary-General officially introduced the Early Warnings for All Initiative (EW4All) during the COP27 gathering in Sharm El-Sheikh in November 2022. The objective of this initiative is to ensure global coverage of an early warning system by the conclusion of 2027.

To ensure its effectiveness and comprehensiveness, an ideal early warning system consists of four interconnected components:

- understanding and awareness of risks;
- monitoring and alert services;
- effective dissemination; and
- the ability to respond appropriately to warnings.

3.5 Standardised procedures for efficient and effective consultations and approval procedures should be an integral aspect of the risk preparedness mechanisms provided by the State Parties.

3.6 Guidance on general and targeted disaster prevention and preparedness planning in advance of traumatic events, along with strategies when events unfold, is provided in several guidance documents prepared by national and international organisations, based on their accumulated experience in addressing emergencies. Ensuring that these documents are well known among heritage institutions and professionals through training and capacity-enhancement activities is key to improving post-event response and creating an environment conducive to resilience building.

From top to bottom:
Fig. 28. The resumption of worship in the reconstructed Temple of Nuestra Señora de La Asunción, San Luis Potosí, Mexico (Source: Renata Schneider)
Figg. 29. a, b. Discovery during conservation of significant decorative detail that had been concealed under a floor, Palazzo Carli Benedetti, L'Aquila, Italy (Source: Carla Bartolomucci)

Risk assessment and disaster recovery planning

3.7 Given the changing nature of the threats to heritage places and World Heritage, each State Party should ensure that the risks to properties under their care have been adequately identified, and that risk assessments are routinely updated. Risk assessment applies to both tangible and intangible attributes.

3.8 As required by the World Heritage Committee, all listed World Heritage properties should now have a Statement of Outstanding Universal Value, based on properly identified attributes and submitted to the World Heritage Committee.

3.9 Where management plans are deficient in their descriptions of attributes and their exposure to risk, they should be updated as a matter of urgency.

Management plans need to specify actions to be taken to manage or mitigate risks.

3.10 Management systems and planning instruments need to incorporate disaster management considerations that are appropriate to the identified risks of the individual heritage places concerned.

Ongoing review and revision of management plans must take explicit account of identified risks, including slow-onset risks associated with urbanisation – for example, drainage changes, paving, tourist facilities – which may be obstacles to response and potential sources of risk.

3.11 The need for such preparedness and disaster risk reduction is underlined by the uncertainties surrounding the impacts of climate change, which may alter environmental conditions in ways that affect both human activities and the performance and resilience of built structures.

Considering the gaps in risk data and risk drivers (such as climate change), participatory vulnerability and capacity assessments at heritage places are essential. At the same time, a multi-hazard and scenario-based approach to risk mitigation and emergency preparedness is needed.

Custodians should be encouraged to move away from single-hazard-based risk mitigation to help enhance disaster resilience. Equally important is to consider the conflict risk and understand how a heritage site may be exposed in the case of conflict.

3.12 For World Heritage properties, preparedness and response considerations and mechanisms should be integrated by States Parties into the management plans as an amendment and then submitted to the World Heritage Committee for review.

Fig. 30. Flood wall built as protection against future events, Wachau Cultural Landscape, Austria *(Source: M. Schimek)*

Communication platforms and protocols

3.13 It is necessary to make provision for coordination and information-sharing between agencies and key individuals within the jurisdiction, both regionally and internationally. This is a key component in preparedness for anticipated events, making provision for post-event intervention and improving the capacities of society to respond appropriately – in other words, to improve the resilience of the system as a whole.

3.14 Information capture and storage provisions should be reviewed to ensure access where and when necessary. The resources of UNESCO and the Advisory Bodies are available to assist in developing effective national and international communication networks.

Embedding cultural heritage protection

3.15 Provision for the protection of heritage assets must be embedded in wider recovery processes. This also applies to the preparation of plans for sustainable development in which job creation is an integral part of environmental sustainability.

The integration of knowledge and practices from local communities plays a crucial role in building resilience towards disasters in spatial and economic planning, particularly in historic places, urban centres, and cultural landscapes. By incorporating traditional knowledge systems, the planning process becomes more sustainable.

3.16 With the inclusion of protection requirements in targeted heritage training programmes, the knowledge and skills of operatives faced with response to disasters will be enhanced.

Investing in education and capacity-building programmes promoting the transmission of traditional and local knowledge and practices is crucial. Likewise it is important to support initiatives that empower youth, strengthen cultural identity and enhance their participation in recovery processes. This ensures the intergenerational transfer of traditional knowledge systems and practices that can build or sustain resilience.

Fig. 31. The inner courtyard of Palazzo Carli Benedetti, L'Aquila after restoration *(Source: Carla Bartolomucci)*

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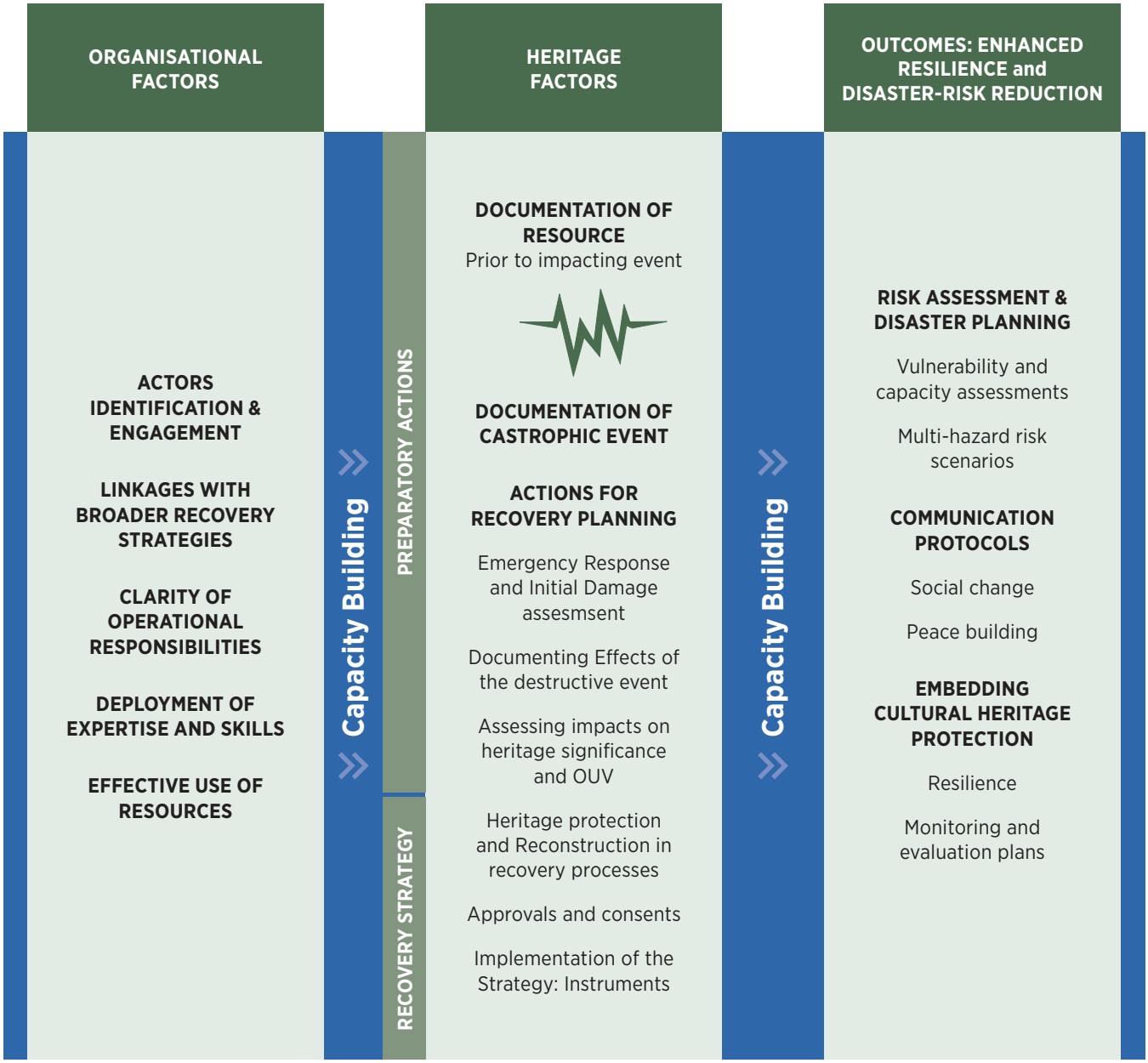
Fig. 32. Cultural Heritage Recovery Framework



ICOMOS-ICCROM GUIDANCE

ON POST- DISASTER AND POST-CONFLICT RECOVERY AND RECONSTRUCTION

In addressing the recovery and reconstruction of heritage places, the Guidance builds upon the body of thought and practice developed by ICOMOS and ICCROM over decades of their activity. This Guidance aims to help relevant actors affected by destruction at heritage places of cultural significance to set up sound decision-making processes for recovery and reconstruction. It sets out a framework within which thorough, informed and participative decision-making can be undertaken in recovery. Recovery is understood to include reconstruction, involving tangible and intangible attributes of heritage places and World Heritage properties. The Guidance aims to suggest a context-attentive recovery approach that enables the perpetuation of the significance of heritage places and Outstanding Universal Value (OUV) of World Heritage properties to the greatest extent possible.

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