



MUSEUMS CONNECT WITHOUT BORDERS

Museums Under Fire

What Iran's museums learned about buildings, storage and survival – Based on information gathered from 25 museums

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**Material provided by Kimia Amini
from ICOM Iran, survey results from 25 museums**

ICOM ICAMT — International Committee for
Architecture and Museum Techniques (Archi Techs)





THE CONTEXT

Two wars, one year

120+

museums marked with
the Blue Shield
emblem

140+

cultural & historic
locations damaged

30+

Museums
affected

5

UNESCO World
Heritage
sites affected

The 12-day war (June 2025) and the Ramadan war (Feb–Mar 2026) hit museums in two different ways.

Almost none were struck directly. Nearly all the damage came second-hand — blast waves, ground shock, and pressure differentials from strikes on neighbouring blocks. Golestan Palace was damaged by explosions in Arg Square, inside its own UNESCO buffer zone.

That single fact reframes the problem. A museum cannot make itself un-targeted. It can only make itself resistant to what happens next door.

THE CONVERSATION

Newsletters



War is taking its toll on Iran's cultural treasures, such as the Golestan Palace (UNESCO world heritage site), which houses precious marble artefacts like the sarcophagus of a Shah from the Persian Qajar dynasty. MehmetO/Shutterstock

When war comes for Iran's cultural heritage

Published: April 13, 2026 3.46pm BST



Parsa Ghasemi, Université Paris 1 Panthéon-Sorbonne

<https://theconversation.com/when-war-comes-for-irans-cultural-heritage-280335>



How a historic museum building actually fails



1

Glazing

Windows, skylights and vitrine glass fail first. At Golestan, 50–60% of doors and windows broke. Glass becomes shrapnel travelling toward the collection.

2

Ceilings & applied ornament

Plasterwork, muqarnas, mirror mosaic and painted ceilings detach under vibration. They fall onto whatever sits below.

3

Envelope breach

Once glazing is gone the building is open — to rain, dust, temperature swings, birds and unauthorised entry. Damage continues for weeks.

4

Structural fatigue

Repeated shock over multiple events, not one big blast, is what loosens masonry and timber joints.

THE CENTRAL LESSON

Storage is a very important architectural decision

Harder to provide secure storage in historic buildings converted into museums—but this may need to be reconsidered.

Across every Iranian case we documented, one variable predicted outcomes better than any other:

Did the museum already have adequate, accessible, protected storage inside its own footprint?

YES

Objects moved in hours, in-house, by known staff. Short, controlled route. No transport exposure.

NO

Objects convoyed off-site. Days of work, road risk, custody gaps, and a receiving space nobody had surveyed.



Successful Storage Spaces



THE MECHANISM

Why Storage Space Inside the Museum Building Matters

Time

Internal relocation runs in hours. External evacuation runs in days — and the danger window is measured in hours.

Custody

Objects never leave institutional control. No handover, no gap in the paper trail, no ambiguity about who is responsible.

Handling

The same registrars who know the objects do the packing. No external crew learning a collection under pressure.

Transport

Road movement during conflict is its own hazard: checkpoints, fuel shortages, closed routes, vibration, theft.

Return

Objects come back up a staircase. Reinstallation begins the week the museum reopens, not the month after.

Cost

No vehicles, no fuel, no external security contract, no rented receiving facility.



Successful Storage Spaces



Initial Steps

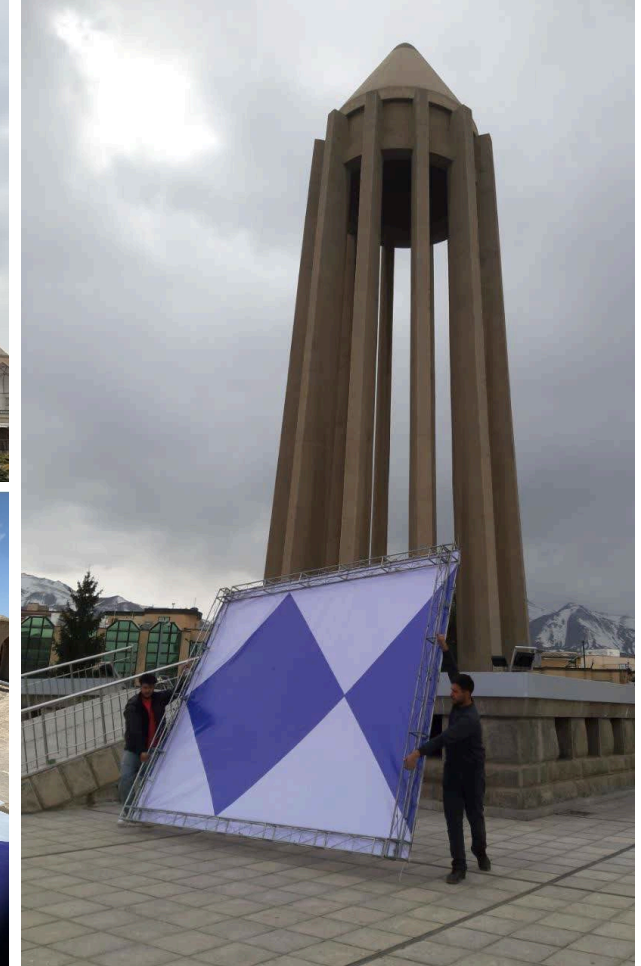
Hundreds of Thousands

of objects relocated

The Ministry ordered evacuation as soon as war became certain — before the first strike, not after.

Objects that could move were relocated. Everything else was protected in situ to ICOM conservation standards. The museums displayed the Blue Shield emblem.

The decision that mattered was made before the war started. Everything after was execution.



120+ museums displayed the Blue Shield emblem

Historic Buildings— protecting what cannot move

A great deal was learned during the 12-day war, and many of these lessons were put into practice before the next conflict.

Not everything is portable. Chandeliers, fixed marble, monumental furniture, architectural surfaces — these stay. A parallel protocol is needed for them.

- Vitrines beside windows emptied first — glazing proximity is the risk multiplier
- Anti-shatter film and adhesive lattice applied to historic glass
- Sandbag walls at strategic points to absorb blast energy without touching historic fabric
- Soft wrapping and restraint for immovable objects; padding at contact points
- Water and gas isolated in museum zones to prevent the second disaster
- Combustible material cleared from the perimeter; vehicles banned near the building



The first 72 hours after a breach

1

Close the envelope

Plastic sheeting to broken windows and doors within hours. Stops weather, dust and unauthorised entry.

2

Shore and stabilise

Temporary propping for weakened ornament before anything else is touched.

3

Document before clearing

Photograph in place. Fragments are evidence and they are also the restoration material.

4

Collect and classify fragments

Every detached piece bagged and located. Original material gets reused; new material is minimised.



Temporary sheeting to windows and doors after the Ramadan war



DOCUMENTATION

The record is itself the heritage

If the object is lost, the record is what remains — for reconstruction, for insurance, for recovery of trafficked material, and as legal evidence under the Hague Convention.

3

independent backup copies

Digital archives duplicated and stored in physically separate locations — one museum kept three, in two data centres.

HD

architectural capture

High-resolution imaging of every ceiling, surface and decorative scheme, before damage occurs.

2D/3D

photogrammetry

Dimensional records of signature objects — the only basis on which accurate reconstruction is possible.

Documentation is the only protective measure that keeps working after the building is gone.



DESIGN GUIDANCE

A storage brief for museums at risk

Location

Below grade or ground level within the museum footprint. Away from the perimeter wall and from any street-facing façade.

Capacity

Sized for the full movable collection plus 30% — not for current holdings alone.

Access

Step-free route from every gallery. Doors and lifts sized to the largest object, verified by survey, not by drawing.

Structure

Independent of the historic fabric where possible; resilient to vibration; no glazing.

Compartmentation

Fire-rated separation, anti-theft doors, and material-specific zones — textiles, metals, organics, paper.

Services

Isolatable water and gas. No wet services routed overhead.



What transfers to any museum, anywhere

Do now, at no cost

- Survey your evacuation route and record every door width and lift capacity
- Write the priority object list and make it findable
- Back up your documentation to a second physical location
- Identify who decides and the procedure

Do next, at low cost

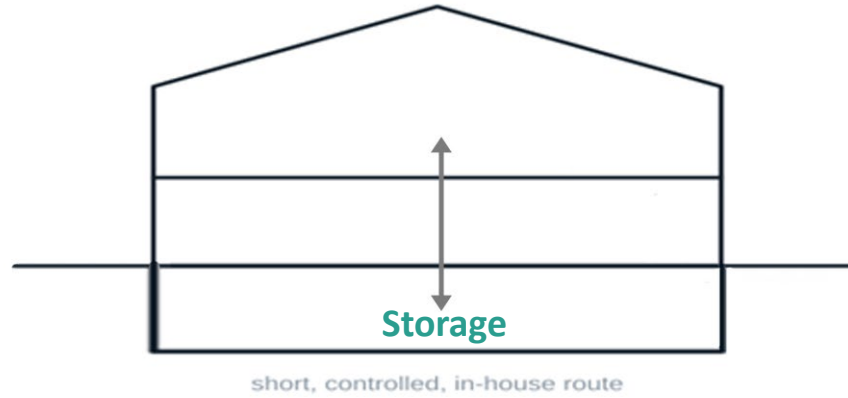
- Anti-shatter film on gallery glazing
- Empty vitrines nearest windows first, as standing policy
- Photograph your architecture in HD before anything happens
- **Rehearse one packing drill a year**

Do in your next capital project

- Size and site the storage correctly
- Step-free internal route to the storage
- Fire compartmentation and material zoning
- No glazing, isolatable services



1 · STORE INSIDE THE FOOTPRINT



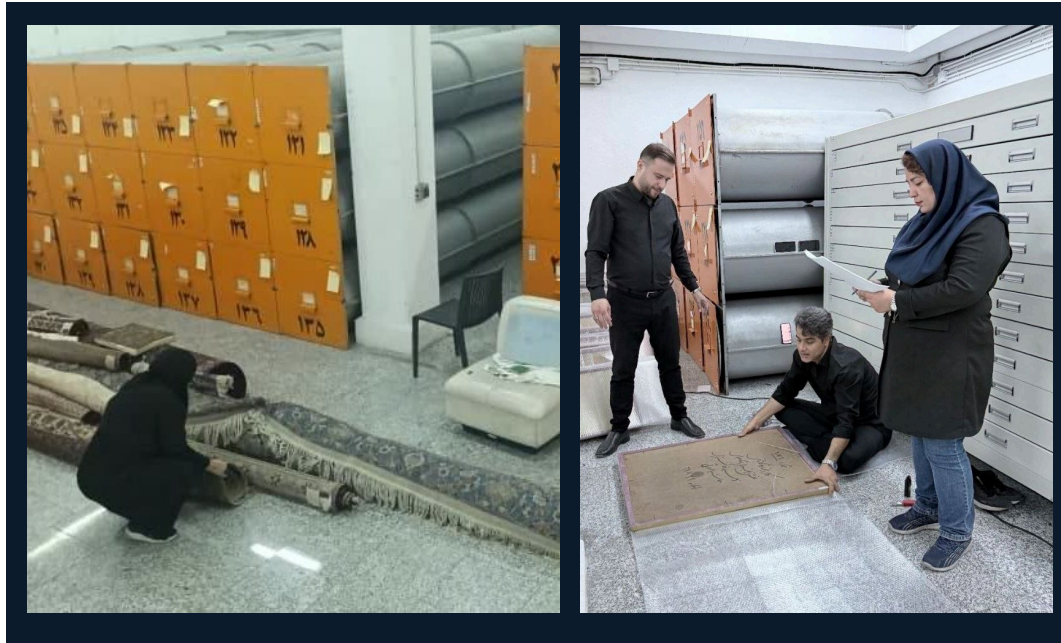
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STRATEGY 01

Put the storage inside

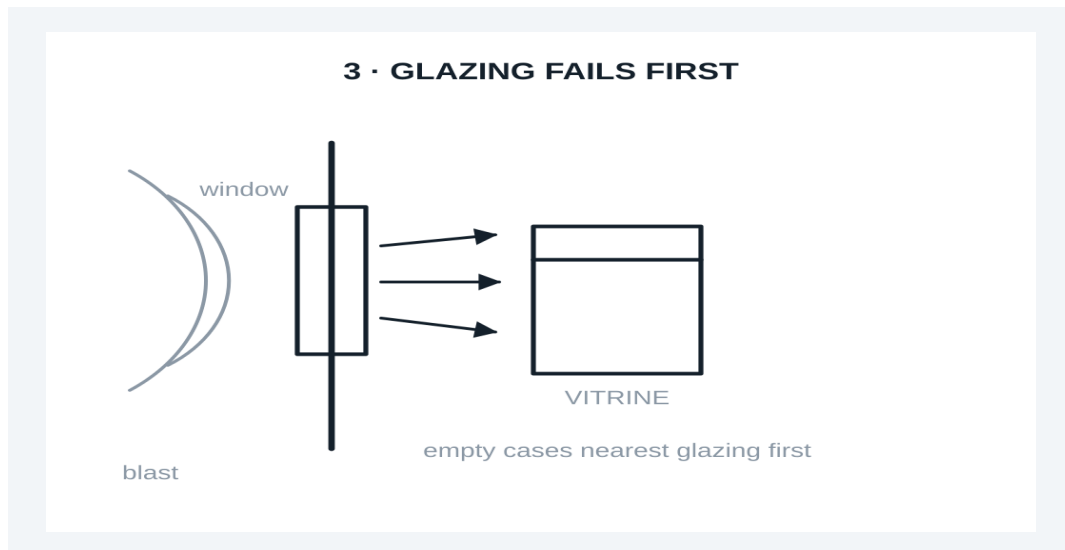
Add nearby underground storage for historic buildings.

Put the storage space below grade, within the building's own footprint. Objects never leave institutional control, and relocation runs in hours, not days.



Objects secured within the museum's own reinforced store

Successful Storage Spaces



02

STRATEGY 02

Treat glazing as the weak point

Windows, skylights and vitrine glass fail first.

At Golestan, 50–60% of doors and windows broke, and glass becomes shrapnel travelling toward the collection. Anti-shatter film on historic glass, and a standing policy to empty the cases nearest windows first, cut the damage before it starts.



Fallen ceiling ornament beside a damaged window bay



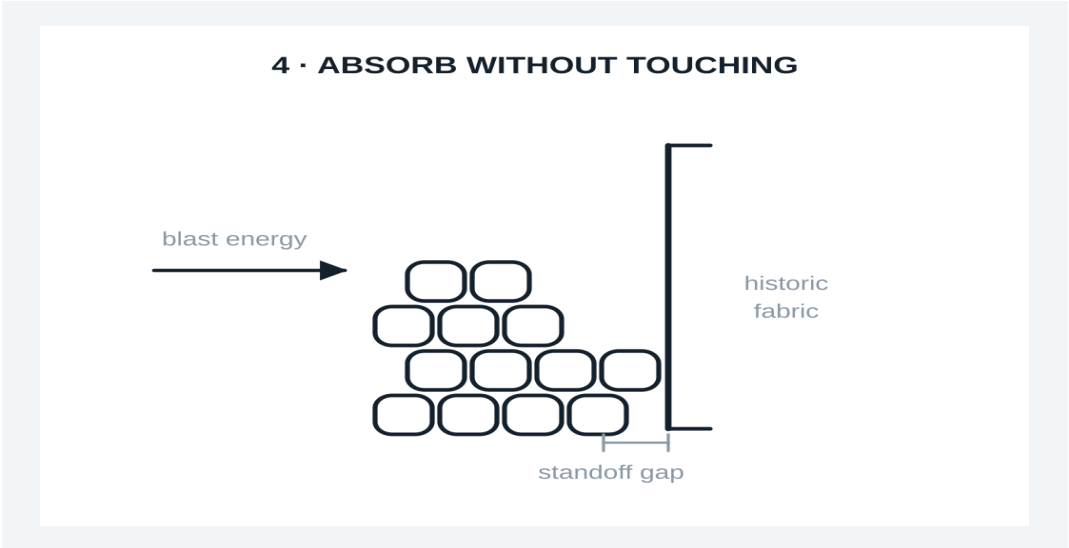
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STRATEGY 03

Absorb energy at a standoff

The mitigation must never itself damage the fabric.

Sandbag mass placed at strategic points absorbs blast energy — but held clear of the historic wall, at a deliberate standoff gap, so the protection touches nothing it is meant to protect. Energy is absorbed; the surface is untouched.



Sandbag walls staged to absorb blast energy



5 · SURVEY THE ROUTE



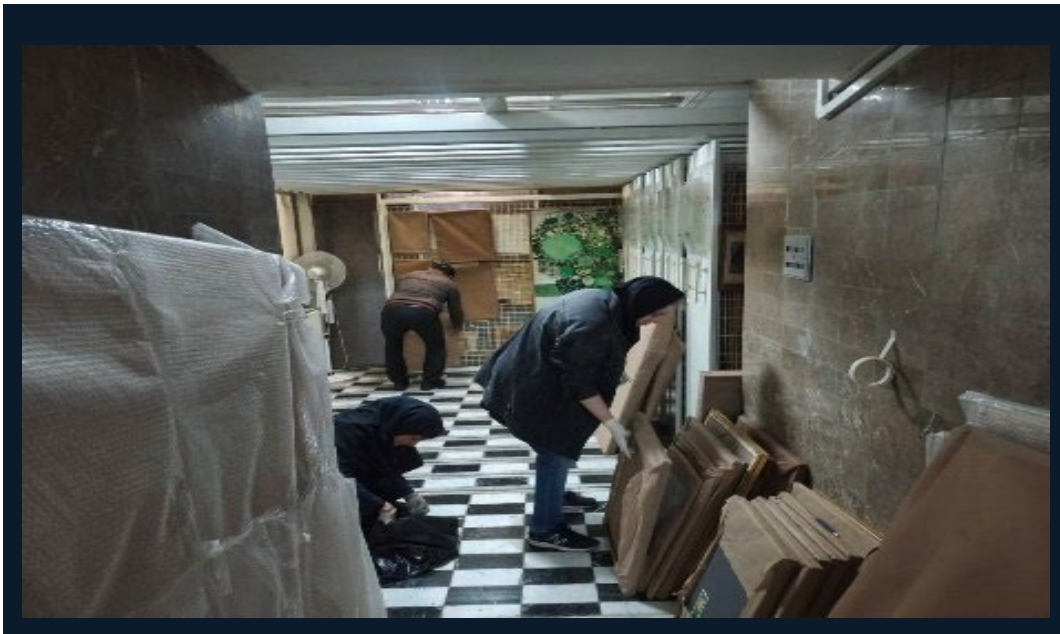
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STRATEGY 04

Measure the route

The narrowest point decides what you can save.

Door widths, lift capacity and stair turns must be verified by survey, not read off a drawing. Where the route was never measured, some objects physically could not reach the safe space on the day it mattered.



Moving a large object through a constrained corridor



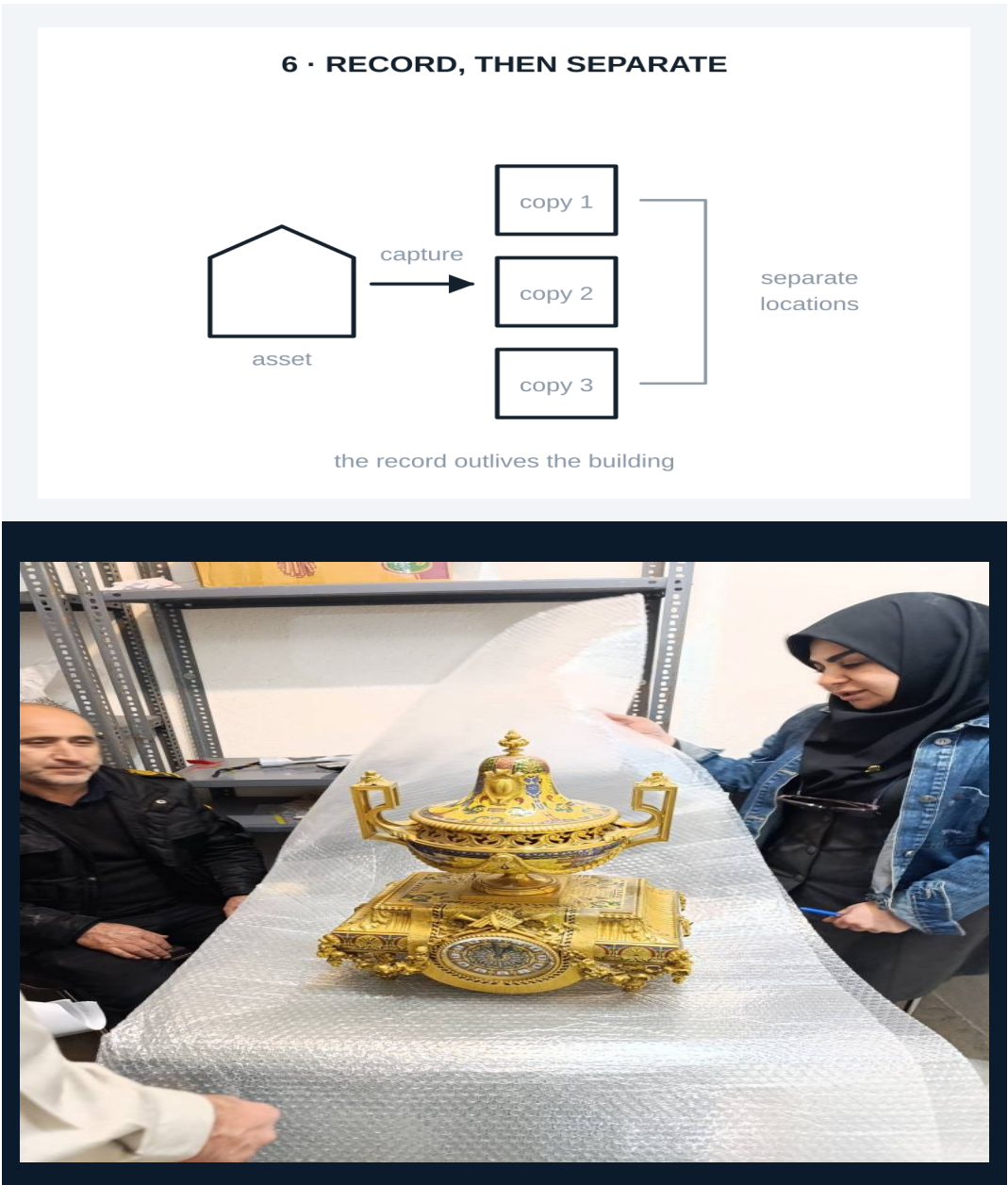
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STRATEGY 05

Record, then separate the copies

The record is the only protection that outlives the building.

High-resolution documentation of every object and surface — made before damage — is the basis for reconstruction, insurance, recovery of trafficked material and legal evidence. Kept in physically separate locations, it survives whatever the building does not.



Documenting and stabilising a signature object

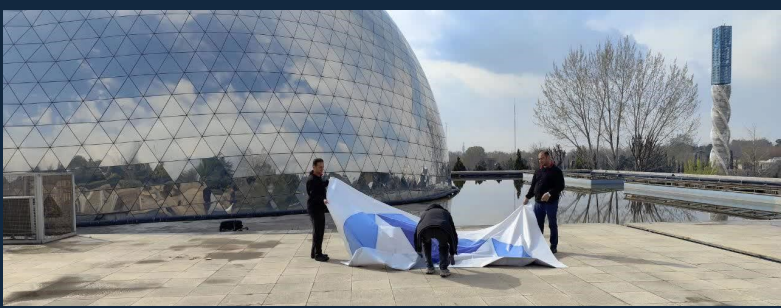
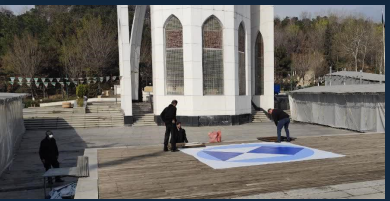


DOCUMENTED · THE DAMAGE

What the blast waves left



Indirect damage: shockwave, vibration, envelope breach



CAPACITY BUILDING

What ICOM Iran and several museums did

Blue Shield marking campaign

120+ museums and historic buildings marked with the emblem, with guidance on correct placement and legal meaning.

Enhanced Protection applications

Museums supported to complete UNESCO Enhanced Protection request forms — a legal instrument most staff had never used.

Bilingual public infographics

Persian/English materials on heritage in conflict, community-led protection, and the role of government bodies.

Staff drills and briefings

Protocol rehearsals, rapid-response team formation with written role descriptions, and content teams for public communication.

Specialist convenings

Public sessions on Isfahan's heritage in wartime; World Heritage Day events on protecting heritage during conflict.

Documentation to ICOM & UNESCO

Iranian findings formally reported to the international museum community rather than kept internal.



Staff drills



Community-led heritage protection guidance, circulated in Persian and English



MUSEUMS CONNECT WITHOUT BORDERS

Storage is not back-of-house. In wartime it is **the whole house.**

What often determined whether a collection survived was a decision made years earlier, in a design meeting, about a space that was usually treated as secondary.

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