Guidance Note No1: Protecting Iconostasis during times of Armed Conflict

This is a brief guidance note for those who have to take action to protect iconostases in the event of imminent threat to cultural heritage. (The format is based on that used by ICOMOS and Corpus Vitrearum International in their guidance: Securing Stained Glass in Wartime.) Measures that are already being taken to protect churches include: testing fire prevention systems, fire wardens issued with instructions, protection of some exterior elements, and delivery to some churches of water mist extinguishers to extinguish small fires. Supporting advice can be found in Icon Guidance Note No.2: Putting out small fires and the use of extinguishers in historic buildings, museums and reglious sites during times of armed conflict, which includes recommendations on preventive measures.

PROTECTION FOR ICONOSTASIS DURING WAR

Record the iconostasis photographically in situ: take photographs of the front and back, and the individual elements. Include a photograph showing the position of the iconostasis in the church. Record the date, and keep a record of photos taken, if time allows.

If it can be moved

Dismantle and remove each element

Record a very brief description of each piece, number each, with a tie-on label and if possible, record the number of photograph taken

Wrap the separate elements, number and pack in crates

Label crates and list items in each crate

Remove and store securely in a safe location. If storing underground try to store in stable conditions, not too dry or damp, away from water pipes. If possible, store raised on wooden blocks if not crated

If it cannot be moved

1

Fire protection

Beware: will only provide limited protection

Cover first with bed sheets/ linen cloth and then with flame retardant material to help mitigate the impact of fire damage

Where available use lengths of fire-retardant material, cut from a roll.

If there is an aluminised layer, install with this layer on the outside, away from the iconostasis

Attach the material to timber bracing, installed above the iconostasis if architecture allows

2

Protection against structural damage

Step 1: Cover with flame retardant material if available. Or cover with bed sheets/ linen, woollen cloth, unbleached calico to protect from fine debris.

Step 2: Erect a timber framework around the iconostasis, front and back, if back is exposed, and across the top, and clad with plywood boarding.

Step 3: attach/ staple woollen carpet/ woollen fabric to the boarding, or treat boarding with flame retardant

Step 4: Build a wall of sandbags in front of the boarding, to encase the iconostasis

This short guidance is for use in emergency situations, where time is limited and there is a risk of extensive damage or loss, and where there may be limited access to materials

NOTES:

1. Before the iconstasis is removed or protected ensure that a digital record has been made, to aid reassembly, and if damaged as evidence of a potential war crime.

2. The nature of the protection, and ability to install protection, will vary according to construction and form of the iconostasis, and architecture of the building.

3. Several people will be needed to dismantle the iconostasis, (if it can be dismantled), or to install protection. Dismantling a fragile iconostasis may be very difficult, requiring the skills of a specialist carpenter and conservators, if available. The feasibility of dismantling will vary greatly from church to church. Record each stage, photographically, and number each piece, to help ensure it can be reinstalled accurately. If remaining in-situ, adapt fixings so icons can be removed quickly.

4. In some locations it may be possible to install timber bracing above the iconostasis and attach/ drape lengths of fire-retardant material, or slow burning material, over the timber bracing, down the front and back of the structure (ideally to floor level). Materials could include:

a) woollen carpet and/or dense woollen cloth, slow to burn

b) glass fibre fire blanket or similar, cut from a roll, or

c) materials tested by NIKU (Norwegian Institute for Cultural Heritage Research) in 2021 and found **suitable** for heritage objects. These include:

- **Dale Intertec:** Silicone coated hybrid fabric containing E-glass: E-glass filament + vulcanised silicone coating on both sides. 150 cm/width www.daleintertec.com/fabrics-fibres/
- **Vitrea: Svetsduk EGF550 S2-60:** E-glass with silicone coating. 50 cm/width https://vitrea.se/industriprodukter/brand/tekniska-vavar/
- **Hiltex: Preox Para Aramid fabric:** Preox and Para-Aramid textile twill with aluminium transfer foil on one side. 150 cm/width www.klevers.de/en/ Also available from https://www.textiletechnologies.co.uk/products/aluminium-foil-para-aramid-cloth

Ref: "Guide Historic Buildings and Fire in War-affected Countries" (2022) Nina Kjølsen Jernæs (Norwegian Institute for Cultural Heritage Research) and René Teijgeler (Heritage for Peace) *See sections on Textile Covers and Fire Protective Shields*

d) Alternative fire-retardant materials, untested by NIKU:

- E-glass fabric coated on one or both sides with silicone rubber – 150cm width, is also available from www.textiletechnologies.co.uk/products/
- Aluminized Fabric Thermal Shield Altox 450, Fire Retardant Aluminized Fabric For High Temperatures With Thermal Shield. It gives a high level of thermal protection, against convection and thermal radiation. https://texfire.net/en/flame-retardant-fabrics/flame-retardant-multilayered-fabric/aluminized-fire-resistant-fabric-thermal-shield-altox-450.html
- See too: Takahashi, F. 2019. Whole-House Fire Blanket Protection from Wildland-Urban Interface Fires. Available at: https://www.frontiersin.org/articles/10.3389/fmech.2019.00060/full

BEWARE: some fire blankets are heavy (can easily damage carved details); some may be unsuitable in historic settings (may emit pollutants damaging to paintings); also, the temperature to which they provide protection varies.

5. For additional protection for protecting against structural damage and fire attach/ staple woollen carpet/ woollen fabric to the boarding, or treat boarding with flame retardant.

ADDENDUM

Additional comments received from Nina Jernaes Kjolsen, (NIKU) and Stewart Kidd, Loss Prevention Consultant

1. Not all fire blankets are heavy or emit pollutants. For example, there is available lightweight material tested to BS 476 Part 21 and BS 5867 (the standard for fire resistant curtains). There is also a tested material product by Envirograf which can be used as fire separation in roof spaces where it is mounted on a light metal framework. This provides more than one hours fire resistance as tested against BS 476 Party 22. https://envirograf.com/product/internal-roof-fire-break-barrier/

2. Unbleached calico has a small measure of heat fire resistance - and will not allow flame travel or generate acidic smoke. This would be ideal for protecting an iconostasis in situ where this is to be sand bagged or boarded.

3. I (SK) have seen successful use of fire rated materials to BS EN 1869: 1997. This is the commercial standard for fire blankets and can be cut, tucked and otherwise modified to provide a bespoke cover for three-dimensional objects such as monstrances and statues. It may be possible to create a portable screen with a collapsible frame for Iconostases - even in situ

Compiled by members of a working group organised through Icon, Institute of Conservation www.icon.org.uk , with grateful acknowledgement to conservation and fire specialist colleagues from the UK, Norway, Netherlands, and US.

Version 1 22 May 2022. Any changes made to materials, standards or legislation after the version date of this guidance note will not have been considered.

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