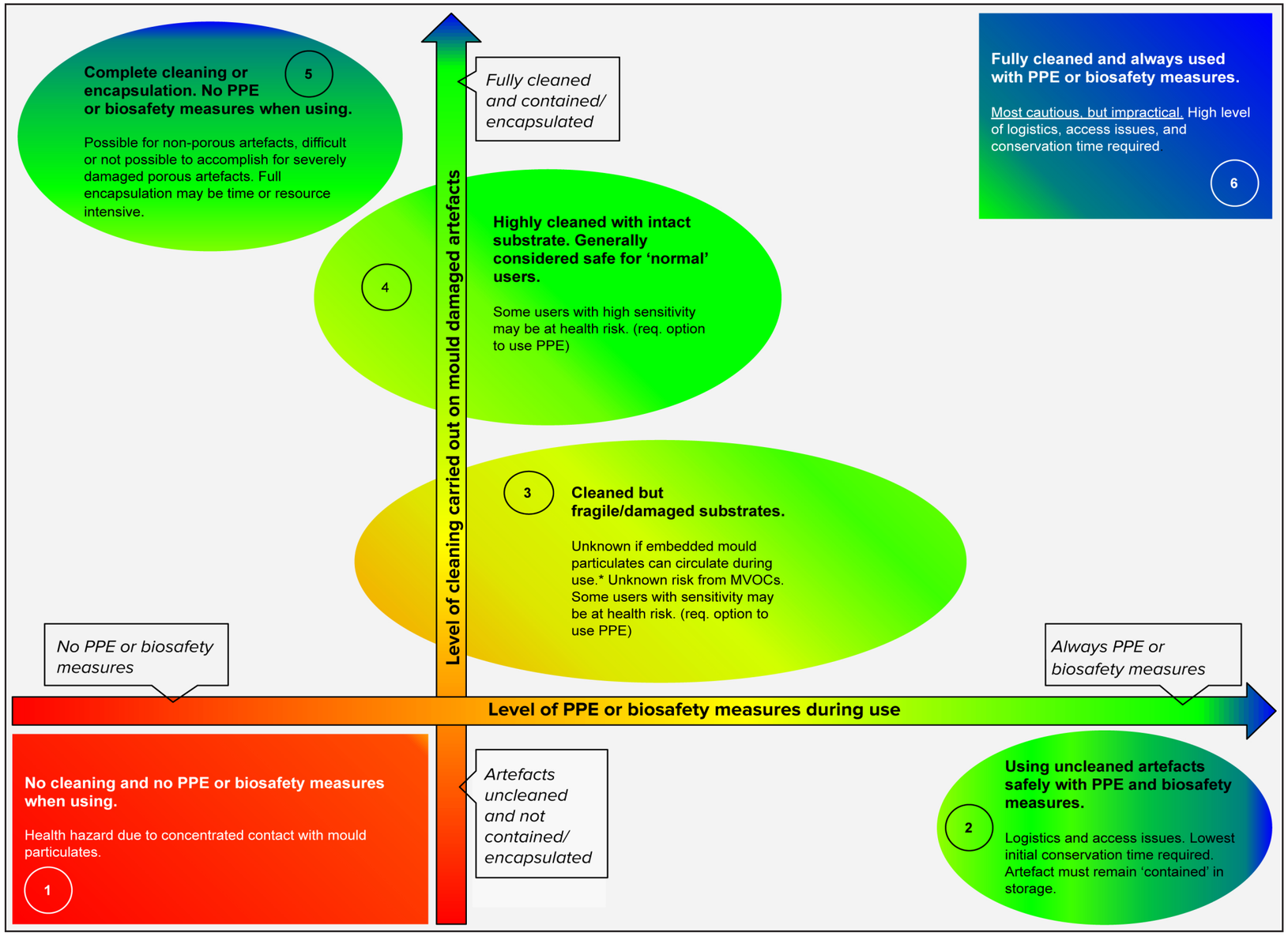
# Mould & Health Risk Diagram

This diagram is used in conjunction with the Mould Thresholds of Cleanliness. It can be used to map scenarios for determining risks when accessing mould damaged or mould remediated artefacts. See https://canadianconservationconsortium.ca/en/mould-levels/ for an explanation of *Thresholds* and a *Mould Decision Tree*.

## Achieving Threshold 1 - Minimise spread of mould/health effects




Examples

2. A mould damaged object of low importance (fully dried) remains isolated by polyethylene wrapping and box. It is stored in an environmentally controlled room, separated from other undamaged items. It is only consulted while wearing PPE and within a biosafety cabinet.

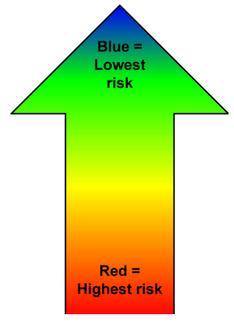
3. A paper document with surface and embedded mould, staining, and paper damage (softness), is dried, cleaned with a HEPA vac + brush. There is no mould to visible to the naked eye. Under magnification, hyphae can be seen embedded into the paper fibres. The paper surface may be fragile.

4. An unfinished wood artefact or paper document (strong intact substrate) with some surface and embedded mould damage is dried, cleaned with a HEPA vac + brush and smoke sponge. A 70:30 EtOH/H20 solution is applied as a disinfectant and secondary cleaning technique. Under magnification, a few hyphae can be seen embedded in the fibres. The surface feels clean to the touch.

5.a A varnished wooden item with surface mould is cleaned, the surface remains polished afterwards.
5.b. A strong paper with a very small amount of dried surface mould is cleaned. No evidence of residues remain.
5.c. A very damaged paper pamphlet (staining, mould, holes from mould damage) is dried, cleaned as much as possible with a HEPA vac. Mould residues remain, so each page is fully encapsulated in polyester.

Biosafety measures and PPE:

Measures used to minimise exposure to mould residues, such as working within a biosafety cabinet; wearing Personal Protective Equipment, including nitrile gloves, tyvek sleeves/suits and using an N95 (US)/FFP3 (EU) respirator; cleaning surfaces after consultation of mould damaged artefacts. Other methods such as working under cover outside (weather permitting) with PPE may be possible.




Methods to determine the relative efficacy of surface cleaning procedures by checking for mould residues:

Microscopy; wipe test; biological/fungal swab tests (e.g. rapid adenosine; Mycometer Surface ®)

More subjective: Touch (does the surface feel clean and intact, does it feel gritty/sandy/dusty to the touch?)

*Factors that may affect ability of embedded particulates to circulate:

Type of surface cleaning + how many passes, aqueous cleaning techniques or not;
Consolidation, repairs, any adhesives applied to affected area;
Level of damage caused to the substrate surface or movement required of the substrate during use

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