

CONSERVATION CENTER

for Art & Historic Artifacts

Glove, Actually: Confident
Decision Making in
Artifact Handling





Conservation Center for Art & Historic Artifacts



In a typical year:

- Preservation Services specialists complete over 50 survey projects.
- Approximately 60 CCAHA-sponsored workshops, conferences, webinars, and training sessions are presented.
- The Digital Imaging Services staff digitizes thousands of pages of fragile archival documents, books, and photographs.
- Conservators assess and treat more than 6,000 individual artifacts, from over 400 clients.
- Housing & Framing Services house approx. 75% of the artifacts treated (folder, sleeve, box, mat and frame, or sealed package).



AGENDA

1. Guiding Principles
2. Glove Types
3. Criteria
4. Analysis
5. Ask the Right Questions
6. Resources



GUIDING PRINCIPLES

- 1.It's okay to not know
- 2.Harm reduction, not perfection
- 3.Guidelines, not rules
- 4.Tools are only as good as how you use them
- 5.Follow the science



COTTON



NITRILE



BARE
HANDS

OTHER OPTIONS

Disposable

1. Latex
2. Vinyl

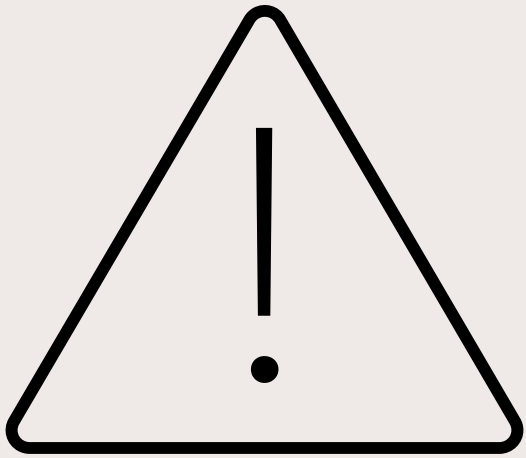


Chemically Resistant

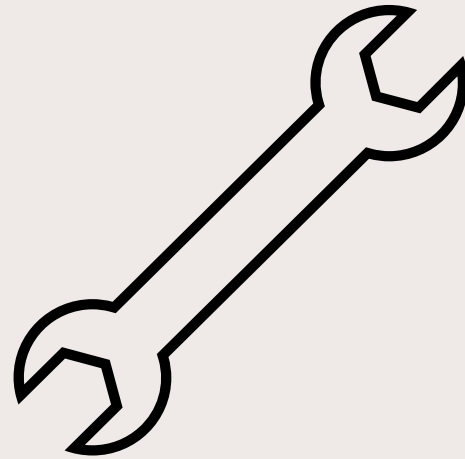
1. Butyl
2. Neoprene



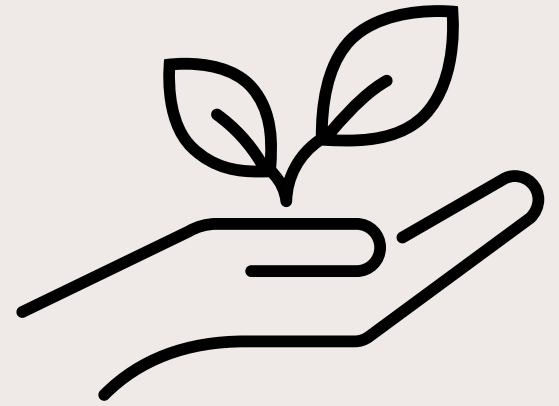
CRITERIA



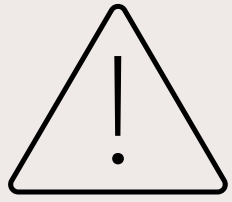
PROTECTION &
RISK



FUNCTIONALITY



SUSTAINABILITY



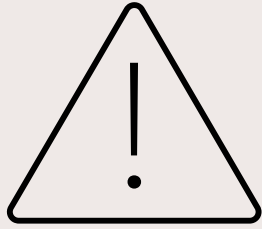
PROTECTION & RISK

1. Protection

- a) Physical & chemical barrier

2. Risk

- a) Issues inherent to the material
 - a) Snagging
 - b) Grip
 - c) Dexterity & touch
 - d) Residue depositing
 - e) Allergies/skin irritation
 - f) Quality control



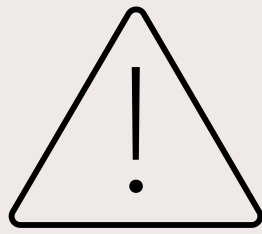
COTTON

PROS

- Protection
 - Some for the item

CONS

- Protection
 - Limited for the item
 - Poor for the handler
- Risk
 - Residue deposits
 - Snagging
 - Dexterity & touch sensitivity
 - ★• Grip



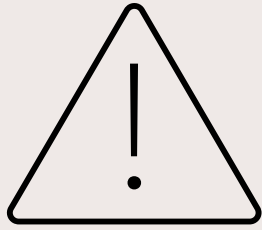
NITRILE

PROS

- Protection
 - High handler protection
 - High item protection
 - Chemically stable
- Risk
 - No depositing
 - Low allergy risk
 - Good grip
- Versatile

CONS

- Protection
 - Cannot be used with certain chemicals
 - ☆• Cannot be used with some metals
- Risk
 - Dexterity & touch sensitivity
 - ☆• Skin irritation
 - Quality control



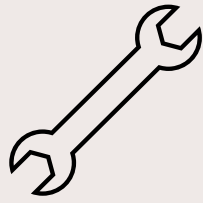
BARE HANDS

PROS

- Risks
 - High dexterity & touch sensitivity
 - The 3 Fs:
 - Friable
 - Flaking
 - Fragile
 - Good grip
 - No snagging

CONS

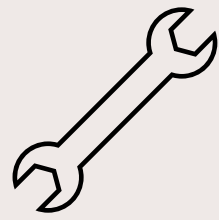
- Protection
 - No protection for the item
 - No protection for the handler
- Risk
 - Residue deposits



FUNCTIONALITY

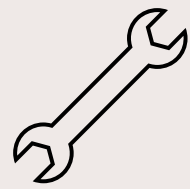
Considering protection and risk factors, how can this glove be used and with which objects?

YES	MAYBE	NO
This is the best option for the object	<ul style="list-style-type: none">• With Modifications• Potentially manageable risks	Low or no protection



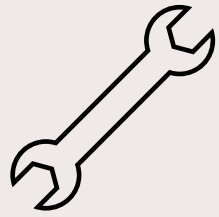
COTTON

YES	MAYBE	NO
	<ul style="list-style-type: none">• With Modifications<ul style="list-style-type: none">• Ceramics• Risks<ul style="list-style-type: none">• Textiles• Metals• Works on paper• Books• Photographs• Paintings• Glass• Wood	<ul style="list-style-type: none">• Natural science specimens• Ethnographic material• Human and animal remains• Unknown or harmful substances• Plastics



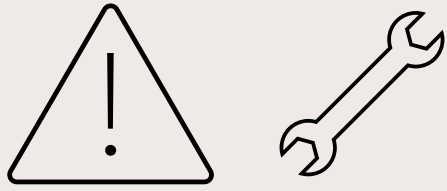
NITRILE

YES	MAYBE	NO
<ul style="list-style-type: none">• Ceramics• Photographs• Ethnographic materials• Glass• Wood• Plastics• Paintings/painted surfaces• Natural science specimens• Textiles• Human and animal remains• Wallpaper• Hazardous substances<ul style="list-style-type: none">• Mold• Arsenic• Lead• Cadmium	<ul style="list-style-type: none">• With Modifications<ul style="list-style-type: none">• "Accelerator Free": Metal• Risks<ul style="list-style-type: none">• Books• Works on paper	<ul style="list-style-type: none">• Old or unidentifiable chemicals/liquids• Ketone varnish• Acetone



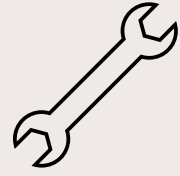
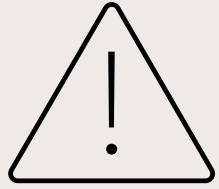
BARE HANDS

YES	MAYBE	NO
<ul style="list-style-type: none">• Works on paper• Books• The 3 F's<ul style="list-style-type: none">• Friable• Flaking• Fragile	<ul style="list-style-type: none">• Risks<ul style="list-style-type: none">• Paintings• Glass	<ul style="list-style-type: none">• Metals• Textiles• Wood• Ethnographic material• Human and animal remains• Unknown or harmful substances• Natural science specimens• Ceramics• Photographs• Plastics



OTHER RULES OF THUMB

- Minimize handling
- Know your intentions
 - Regularity
 - Amount of time used
- Have a back-up plan
- Record & Report
- Know your glove & give it the best chance to work
 - Regular washing
 - "accelerator free"
 - Wash your hands
- Know your vendor



WHAT IF...?

- High touch sensitivity + protection → Latex & nitrile variants
- Reliable grip + protection → Cotton & nitrile variants, neoprene
- Old/unknown liquid or chemical → Butyl or neoprene
- Very limited funds → vinyl

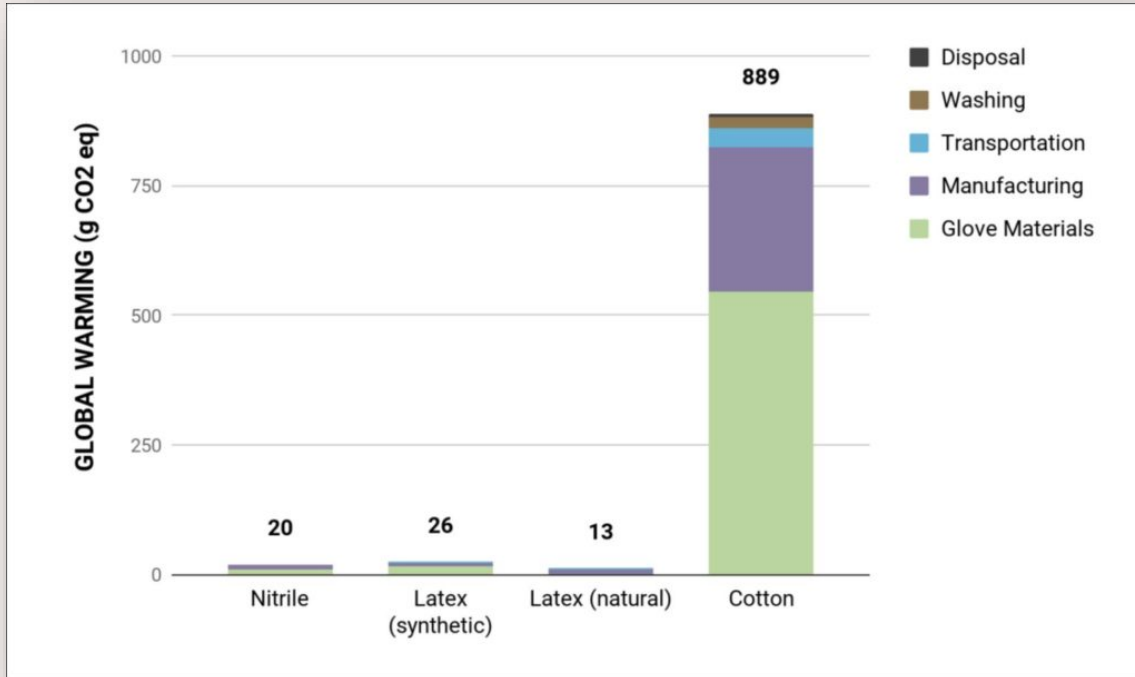


SUSTAINABILITY

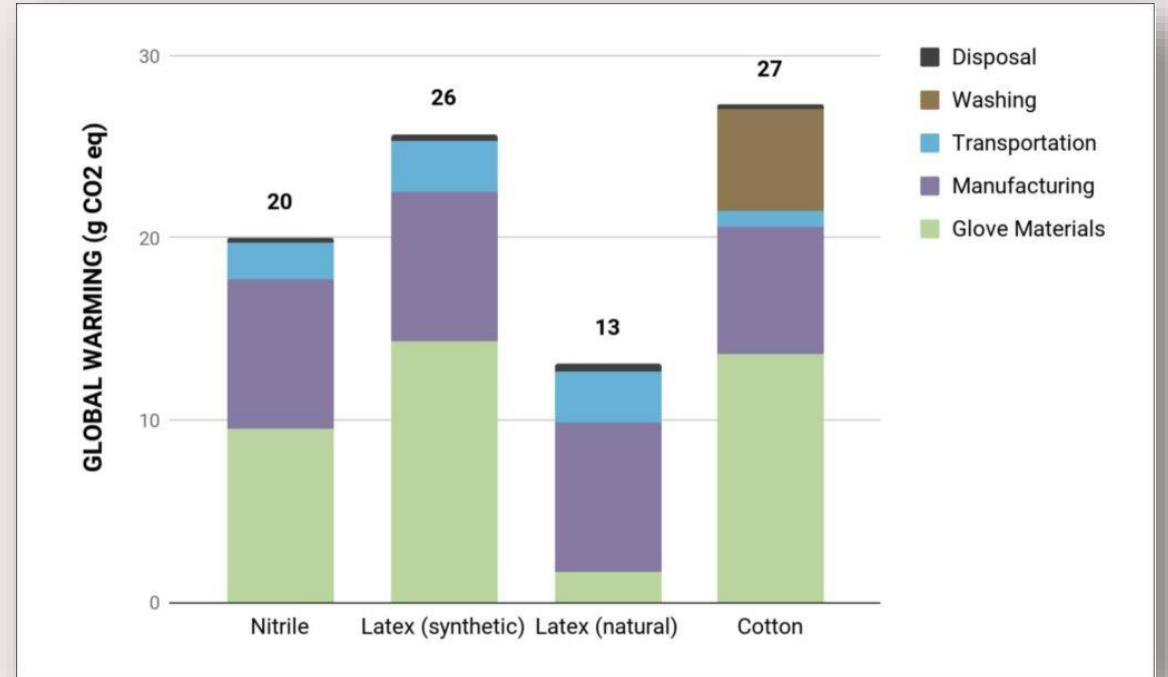
- Environmental Impact
 - Disposal & Use
- Feasibility
- Cost
 - Cotton: \$3/pair
 - Nitrile: 28¢/pair



SUSTAINABILITY



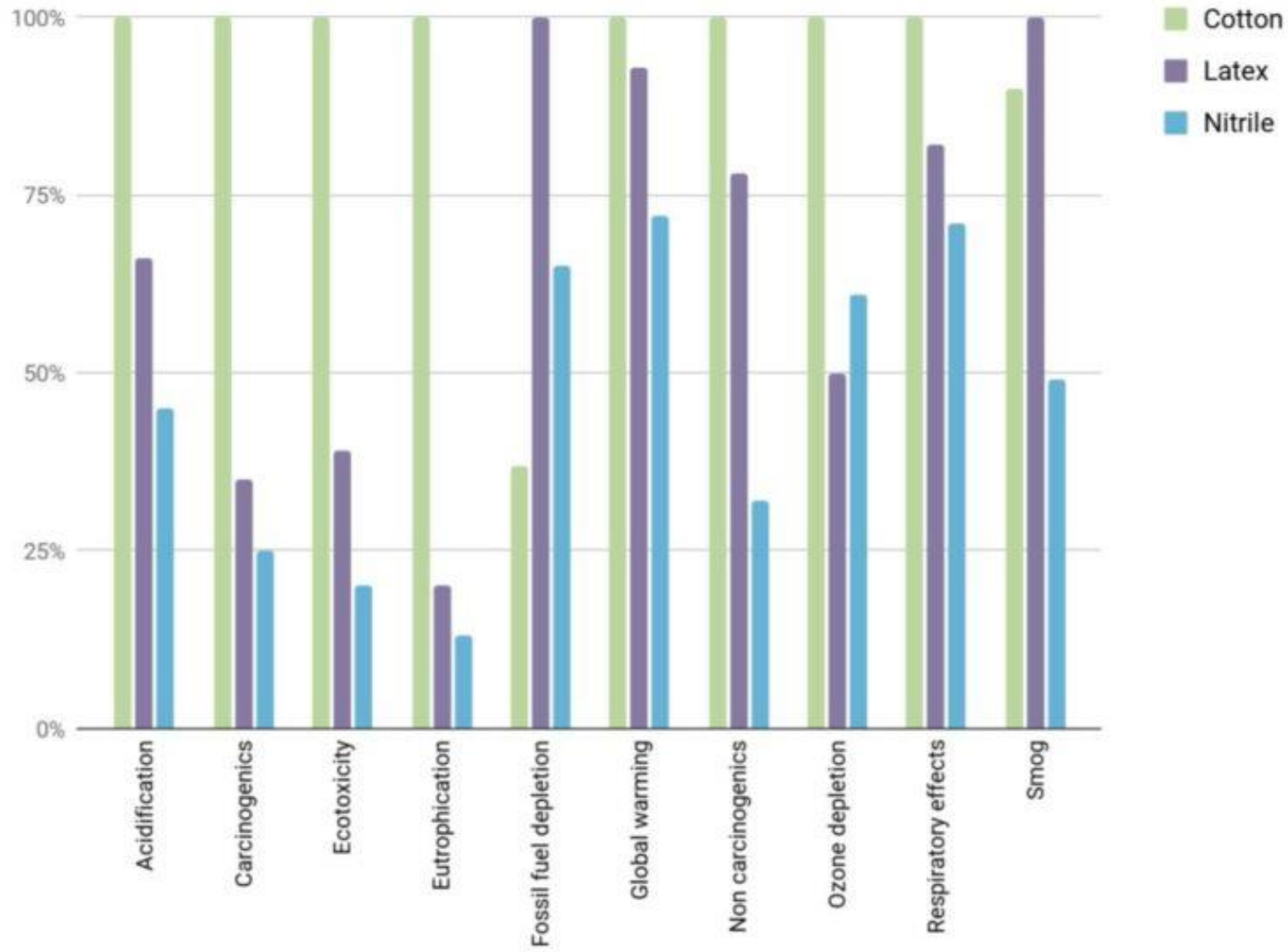
Carbon footprint per glove – single use. Graph courtesy of FAIC's StICH initiative.



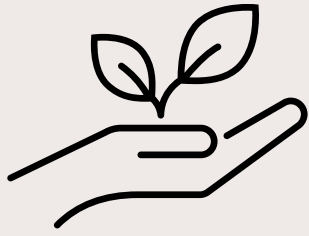
Carbon footprint per glove – reuse. Graph courtesy of FAIC's StICH initiative.



SUSTAINABILITY



Relative comparisons per glove for all environmental impact categories, scaled to the highest impact in each category. Graph courtesy of FAIC's StiCH initiative.



SUSTAINABILITY TAKEAWAYS

- Environmental Impact
 - Nitrile preferred overall
- Disposal = minimal impact
 - Biodegradable nitrile gloves
- Use
 - Nitrile: judiciously
 - Cotton: required
- Feasibility
 - Reduce overall use
 - Rework your process
 - Go glove free
- Cost = negligible difference

ASK THE RIGHT QUESTIONS

1. What are the relative risks of hand exposure vs. dexterity loss?
2. How might substances on my hands negatively impact the piece?
3. How confident am I that the piece is safe to touch?
4. How might the glove's material interact with the object material?
5. What is my biggest concern in handling this piece?
6. What do I plan to do with this piece? How long will it take?

RESOURCES

- **NPS**
 - <https://www.nps.gov/museum/publications/conservation/01-12.pdf>
- **Sustainable Museums & STiCH**
 - https://nemanet.org/files/9914/4009/2048/Green_Museum_Gloves.pdf
 - <https://stich.culturalheritage.org/nitrile-latex-cotton-gloves/>
- **AAM**
 - <https://www.aam-us.org/programs/resource-library/collections-stewardship-resources/storage-and-handling/>
- **Ask a Conservator!**